The role of cancer-associated fibroblasts in altering signal transduction and drug resistance in *KRAS* mutated cancers

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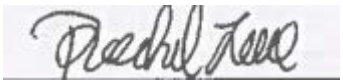
Declaration

I can confirm that the work presented in this thesis is my own except Dr. Lu Yu ran the mass spectrometry machine and raw data analysis and undertook the following sample processing procedures: for the basal state proteome; the different extraction methods in optimising the secretome sample processing (except for FASP); fractionating the samples for the secretome and (phospho)proteome. Also, Ms. Ruth Riisnaes undertook the immunohistochemistry and Dr. Bora Gurel analysed the immunohistochemistry samples.



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Abstract

KRAS is commonly mutated in solid tumours but effective treatment is limited due to resistance. Cancer-associated fibroblasts (CAFs) are a key tumour microenvironment component but how it interacts with *KRAS* mutant-cancer cells from different tissue types is not well explored, particularly in the context of drug resistance. My project investigates whether CAF secreted proteins alter signal transduction and drug response in *KRAS* mutant-cancers from colorectal, lung and pancreatic tissues. Proteins from lysates and media harvested from cell culture, termed conditioned media (CM), were quantified using mass spectrometry. The differential proteome and secretome profiles of cancer cells and CAFs were characterised where novel markers in the proteome, including heat shock protein β6 in CAFs, were validated in tumour specimens. CAF-enriched secreted proteins were also identified, including WNT5B. A bespoke panel of 97 anti-cancer drugs revealed variations in the differential drug response across the cancer cell lines, which corresponds to the varying effect of CAF CM on the (phospho)proteome at the basal state level and highlights the complexity in CAF interactions beyond *KRAS* mutational status. CAF-mediated erdafitinib (fibroblast growth factor receptor (FGFR) inhibitor) sensitivity and resistance to 6-mercaptopurine and methotrexate were consistently observed in lung cancer H1792 where the response was further assessed using (phospho)proteomics. Greater downregulation of cell cycle and FGFR downstream pathways were associated with erdafitinib sensitivity, which could be due to upregulated focal adhesion kinase activity by CAF secreted proteins at the basal state level. Changes in mitogenic and signal transducer and activator of transcription 3

(STAT3) signalling are associated with 6-mercaptopurine and methotrexate resistance, respectively, which could be exploited as a therapeutic strategy. Overall, this data-driven project using a wide drug screen panel and proteomic platforms provided insights into differences between the two cell types and how CAFs could influence drug response, which are of potential clinical relevance.

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List of Common Abbreviations

6MP	6-mercaptopurine
ABC	ATP-binding cassette
ACN	Acetonitrile
ACTA2/α-SMA	α-smooth muscle actin
ALK	Anaplastic lymphoma kinase
ATM	Ataxia telangiectasia and mantle cell lymphoma
ATR	Ataxia telangiectasia and RAD3 related
BCA	Bicinchonic acid assay
BRAF	Rapidly Accelerated Fibrosarcoma B type
CAF	Cancer-associated fibroblast
CCLE	Cancer Cell Line Encyclopedia
CDK	Cyclin dependent kinase
ChEA	Chromatin immunoprecipitation enrichment analysis
CHEK1/CHK1	Checkpoint kinase 1
CKS1B	Cyclin-dependent kinases regulatory subunit 1
CM	Conditioned media
COL1A1	Collagen type 1 alpha 1
COL14A1	Collagen type XIV alpha 1
CPTAC	Clinical Proteomic Tumour Analysis Consortium

CRC	Colorectal cancer
CRYAB/HSPB5	α-crystallin B
DCN	Decorin
DHFR	Dihydrofolate reductase
ECM	Extracellular matrix
EGFR	Epidermal growth factor receptor
ENCODE	Encyclopedia of DNA elements
EPCAM	Epithelial cell adhesion molecule
ERK	Extracellular regulated kinase
FA	Formic acid
FAK	Focal adhesion kinase
FAP	Fibroblast activating protein
FASP	Filter aided sample preparation
FBS	Foetal bovine serum
FGFR	Fibroblast growth factor receptor
FSTL1	Follistatin like 1
GAP	GTPase activating protein
GDP	Guanine diphosphate
GDSC	Genomics of drug sensitivity in cancer
GEF	Guanine exchange factor

Gi50	50% Growth inhibition
GSK3A/B	Glycogen synthase kinase 3α/β
GTEx	Genotype-tissue expression
GOBP	Gene ontology biological process
GTP	Guanine triphosphate
HGF	Hepatocyte growth factor
HSPB6/HSP20	Heat shock protein β6
IAA	Iodoacetamide
IC50	Half maximal inhibitory concentration
iCAF	Inflammatory CAF
IGF1	Insulin growth factor 1
IGFBP5/7	Insulin growth factor binding protein 5/7
IHC	Immunohistochemistry
IL-6	Interleukin-6
IMUP	Immortalisation up-regulated protein
JAK	Janus kinase
JNK	cJUN N-terminal kinase
KRAS	Kirsten Ras Sarcoma
KEGG	Kyoto Encylopedia of Genes and Genomes
LDH	Lactate dehydrogenase

LPPR5	Lipid phosphate phosphatase related protein type 5
MAPK	Mitogen activating protein kinase
MAP2K1/MEK	Mitogen activated protein kinase kinase 1
MSI	Microsatellite instable
MSS	Microsatellite stable
MTOR	Mammalian target of Rapamycin
myCAF	Myofibroblastic CAF
NFKB	Nuclear factor κB
NSCLC	Non-small cell lung cancer
PBS	Phosphate buffered saline
PCA	Principal component analysis
PDAC	Pancreatic adenocarcinoma
PDLIM4/RIL	PDZ and LIM domain protein 4
PI3K	Phosphatidylinositol 3 kinase
PSC	Pancreatic stellate cells
PTGS1/COX1	Cyclooxygenase 1
RAF	Rapidly Accelerated Fibrosarcoma
RB	Retinoblastoma
RT	Room temperature
RTK	Receptor tyrosine kinase

ROS	Reactive oxygen species
SDC	Sodium deoxycholate
SDC2	Syndecan 2
SDS	Sodium docecyl sulfate
SEM	Standard error of the mean
SFN	14-3-3 protein σ
SHH	Sonic hedgehog
SLC34A3	Solute carrier family 34 member 3
SOS	Son of sevenless
S/TM	Secreted or transmembrane
STAT3	Signal transducer and activator of transcription 3
TCA	Trichloroacetic acid
TCEP	Tris(2-carboxyethyl)phosphine
TEAB	Triethylammonium bicarbonate
TGF-β	Transforming growth factor-β
TPD52	Tumour protein D52
TXN	Thioredoxin
TXNIP	Thioredoxin interacting protein
WNT5A/B	Wnt family member 5A/B

Chapter 1 Introduction

1.1 Cancer

Cancer is an umbrella term for diseases where abnormal cells divide uncontrollably causing tumours to form. There are over 200 different recorded types of cancer where they are categorised by cellular and molecular type as well as its tissue location (1). As cancer is a complex disease, Weinberg and Hanahan have conceptualised 8 core hallmarks: sustained proliferation, resisting cell death, inducing angiogenesis, growth suppression evasion, replicative immortality, inducing invasion and metastasis, deregulating cellular metabolism and immune evasion (2). They also defined genome instability and tumour promoting inflammation as enabling characteristics to promote the cancer hallmarks. This year Hanahan has also expanded on the concept with the following as emerging cancer hallmarks: unlocking phenotypic plasticity, cell senescence, non-mutational epigenetic reprogramming and polymorphic microbiomes (3).

In 2020, cancer caused more than 25% deaths in the UK, with lung, colorectal and pancreatic cancer contributing to the majority of cases (4), because effective diagnosis and treatment remain a fundamental obstacle. There is an increasing number of large-scale -omic studies on tumours or cancer cell lines, such as Clinical Proteomic Tumour Analysis Consortium (CPTAC) (5-7) and Cancer Cell Line Encyclopedia (CCLE) (8, 9), which provide insights into the molecular basis of cancer and potential therapeutic strategies. However, there is accumulating appreciation that cancer progression depends on interactions with the tumour microenvironment and so studies need to consider other cell types to understand how cancer cells respond to treatment. My project investigates how one of the cells in the tumour microenvironment, cancer-

associated fibroblasts (CAFs), affect drug response and signalling, via secreted proteins, in *Kirsten Rat Sarcoma* (*KRAS*) mutant-cancers from colorectal, lung and pancreatic tissue. *KRAS* was chosen as our focus as it is a common genetic driver across all three cancer types where it occurs in 30%, 50% and >90% of lung, colorectal and pancreatic cancer cases, respectively (10).

1.1.1 Lung cancer

Lung cancer is the most common cause of cancer mortalities, contributing to 20% of all cancer deaths in UK in 2018 (34,594 cases) (11). Non-small cell lung cancer (NSCLC) is the most common type of lung cancer (85% of lung cancer cases). There are three subdivisions of NSCLC: adenocarcinoma, squamous cell and large cell where adenocarcinoma is the most common in both smokers and non-smokers (40% of all lung cancer cases) (12).

NSCLC is often diagnosed at the advanced stage where surgery is typically not viable and so single or combined treatment of chemotherapy, radiotherapy, immunotherapy and targeted therapy are typically used. Examples of chemotherapy used for NSCLC include platinum based drugs (e.g cisplatin and carboplatin), cytoskeletal targeting drugs (e.g paclitaxel and docetaxel) and anti-metabolite drugs (e.g pemetrexed and gemcitabine) (12). Furthermore, some NSCLC express programmed cell death ligand 1 (PD-L1), which causes the inhibition of cytotoxic T cells, and so this has been successfully exploited by antibodies blocking the interactions between cancer cells and T cells, such as nivolumab (13).

In addition, NSCLC is subcharacterised by mutations (e.g epidermal growth factor receptor (EGFR) and KRAS) and translocations (e.g anaplastic

lymphoma kinase (ALK)), which have led to the licensing of drugs against these targets (14-16). For instance, *KRAS*^{G12C}-specific inhibitor sotorasib has been approved for NSCLC (16). Nonetheless, these treatments are not curative and both primary and acquired drug resistance is a major clinical problem.

1.1.2 Colorectal cancer

Colorectal cancer (CRC) is the second cause of cancer mortalities, contributing to 10% of all cancer deaths in UK in 2018 (16,659 cases) (11). CRC cases are predominately adenocarcinoma (17, 18) and are typically treated with combination chemotherapy including 5-fluorouracil, oxaliplatin and irinotecan (19, 20). *KRAS*^{G12C} mutations only represent a minority of colorectal cancer cancers (11%) (10) but *KRAS*^{G12C}-specific inhibitors have recently been assessed in CRC and unlike NSCLC, they are not effective as single agents and trials of multiple combinations are ongoing (21-23).

Moreover, CRC can be characterised by microsatellite status. Microsatellites are short repeated DNA sequences. Microsatellite instable (MSI) status is characterised by the insertion or deletion of microsatellites due to DNA mismatch repair gene mutations and this occurs in approximately 15% of CRC cases, which can be treated with immune checkpoint inhibitors due to its strong immune activation (24, 25).

To better define the remaining 85% CRC cases that are microsatellite stable (MSS), Guinney *et al* highlighted 4 different CRC subtypes from cross-comparative analysis of six independent transcriptomics where one of the subtypes, characterised by enhanced stromal infiltration, had the worst

prognosis (26). This emphasises the need to investigate CRC cells in the context of its tumour microenvironment to reveal better therapeutic strategies.

1.1.3 Pancreatic cancer

Pancreatic cancer is the fifth cause of cancer mortalities (11) and there has been minimal improvement on the survival rate for over 40 years with only 7% of cases surviving for more than 5 years (27). Clinically, pancreatic tumours are either exocrine or neuroendocrine (endocrine). About 93% of cases are exocrine and pancreatic ductal adenocarcinoma (PDAC) account for >90% of exocrine pancreatic cancers (28). A key feature of PDAC is its highly dense stroma (29).

PDAC treatment depends heavily on chemotherapy and FOLFIRINOX regimen (5-fluorouracil, irinotecan, oxaliplatin and leucovorin) is a common first line of treatment which was adopted in 2011 but clinical outlook remains poor (30). Since then, no major therapy breakthroughs for pancreatic cancer has been approved except for a rare subset of PDAC with germline *BRCA* mutations, which has been approved to be treated with PARP inhibitor olaparib (31). Furthermore, clinical trials for $KRAS^{G12C}$-specific inhibitor sotorasib are currently ongoing but has been so far been reported to be well tolerated (32). Although multiple trials of immunotherapy have been conducted, immune checkpoint agents had limited success in PDAC due to the immune suppressive microenvironment (33).

1.2 KRAS

Given that *KRAS* mutations are prevalent in cancers with high mortality rates, there is a need to improve treatment in the context of *KRAS* mutant-cancers.

1.2.1 KRAS in normal physiology and cancer

KRAS is a fundamental molecular switch in regulating key cell signalling pathways through interchanging between the active guanosine triphosphate (GTP)-bound form and the inactive guanosine diphosphate (GDP)-bound form (34). In normal physiological conditions, KRAS is tightly controlled where KRAS is activated by guanine nucleotide exchange factors (GEFs), such as son of sevenless (SOS), in response to external stimuli as GEFs opens up the nucleotide binding site and accommodate GTP (35). On the other hand, KRAS is deactivated by GTPase activating proteins (GAPs), such as p120-GAP, whereby its arginine finger stabilises GTP hydrolysis (36). Active KRAS stimulates pathways, including extracellular regulated kinase (ERK), phosphatidylinositol 3 kinase (PI3K)/AKT and RAS-related guanine nucleotide dissociation stimulator (RALGDS), which regulate cell proliferation and survival (37) (Figure 1.1). Although the ERK, AKT and RALGDS pathways are commonly described as KRAS downstream signalling pathways, there are other KRAS effectors, such as phospholipase C and other mitogen activating protein kinases (MAPKs) (38, 39).

However, in cancer, mutated KRAS causes persistent activation of the downstream signalling pathways which facilitates tumour progression (40). For instance, the most prevalent codon 12 mutation from a glycine (80% of *KRAS* mutant-cancer cases) blocks the GAP arginine residue from mediating GTP hydrolysis (41) but it has been thought that there are variable rates of GTP hydrolysis between mutants (42). Due to the critical role of KRAS in driving cancer progression, there have been various attempts to target KRAS as a cancer treatment.

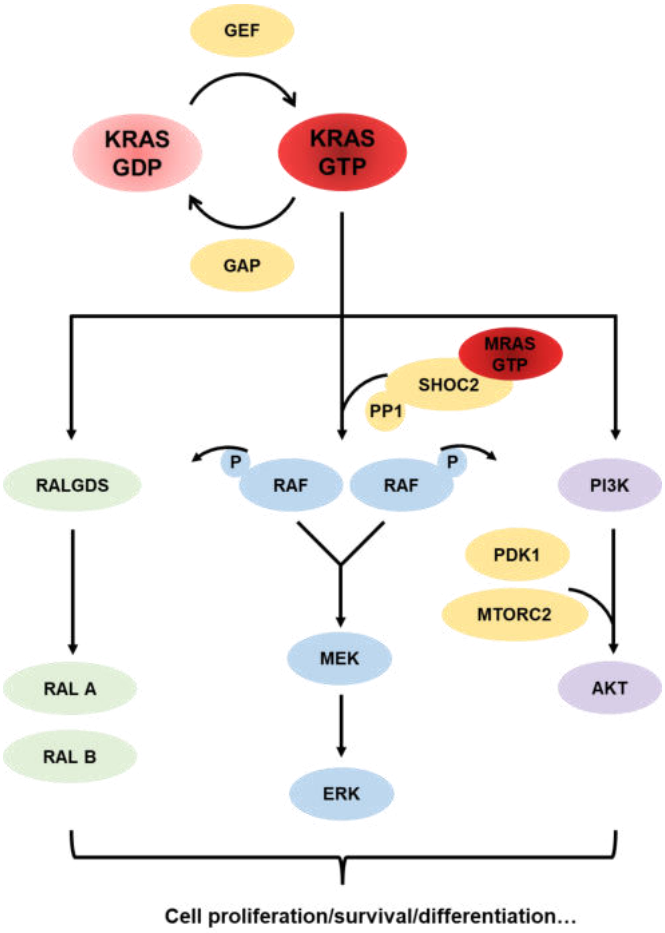


Figure 1.1 Commonly described Kirsten Rat sarcoma (RAS) effector pathways In response to extracellular signals, KRAS is activated by guanine nucleotide exchange factors (GEFs), such as son of sevenless (SOS), which displaces guanosine diphosphate (GDP) for guanosine triphosphate (GTP). On the other hand, KRAS is deactivated by GTPase activating proteins (GAPs), such as p120-GAP. There are three main KRAS downstream pathways: the RALGDS-RAL-A/B pathway, RAF-MEK-ERK pathway and the PI3K-AKT pathway. These downstream pathways are responsible for regulating various cellular functions, such as cell proliferation, survival and differentiation. Abbreviations: ERK, Extracellular Regulated Kinase; MEK, Mitogen Activating Protein Kinase Kinase; MTORC2, Mammalian Target Of Rapamycin Complex 2; PDK1, Phosphoinositide-Dependent Kinase 1; PP1, Protein Phosphatase 1; PI3K, Phosphatidylinositol 3 Kinase; RAF, Rapidly Accelerated Fibrosarcoma; RAL A/B, RAS like proto-oncogene A/B; RALGDS, RAS-related Guanine Nucleotide Dissociation Stimulator.

1.2.2 Current research and treatment strategies targeting KRAS

Figure 1.2 summarises the inhibitors that target KRAS directly or indirectly, which have been approved or being tested in clinical trials. For many years, KRAS was considered undruggable primarily due to its picomolar affinity for GTP/GDP and GTP/GDP being present at high concentrations (micromolar) (43) so it is difficult for inhibitors to compete for the nucleotide binding pocket. Nevertheless, there has been recently significant progress on $KRAS^{G12C}$-

specific inhibitors as the cysteine residue has been exploited for inhibitor binding and this traps KRAS in the inactive state because the inhibitor also hydrogen bonds to the histidine residue in the surface groove, which disrupts switch I and II interactions to favour GDP over GTP (44). Sotorasib was the first KRAS^{G12C}-specific inhibitor approved for NSCLC in 2021 (16, 45) and adagrasib was another KRAS^{G12C}-specific inhibitor approved in 2022 (22, 46, 47) but *KRAS*^{G12C} mutant-cancers from different tissues respond differently to sotorasib. Amodio *et al* demonstrated that *KRAS*^{G12C} mutant-CRC cell lines have higher basal state receptor tyrosine kinase (RTK) activity, which overrides KRAS^{G12C} inhibition, but this can be reversed with anti-EGFR cetuximab treatment (48). With the importance of RTK activity, it is possible that the differential response to KRAS^{G12C}-specific inhibitors between tumours from various tissue types may be caused by stromal interactions.

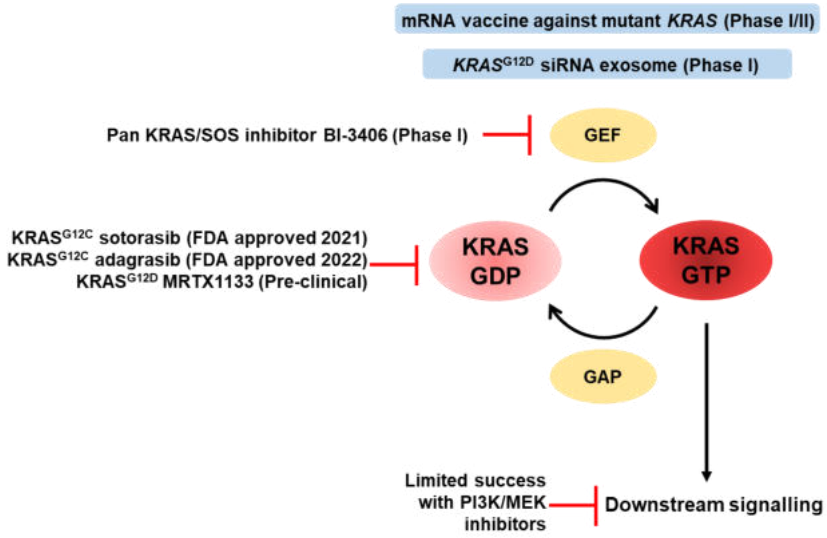


Figure 1.2 Targeting KRAS KRAS is localised to the membrane by farnesyltransferase. KRAS interchanges between the guanosine diphosphate (GDP) and guanosine triphosphate (GTP) form whereby guanine exchange factors (GEFs), such as son of sevenless (SOS), promotes its GTP form whilst GTPase activating protein (GAPs) facilitates the conversion from GTP to GDP form. KRAS in its GTP form activates downstream signalling including phosphatidylinositol 3 kinase (PI3K) and mitogen activating protein kinase kinase (MEK). Various inhibitors have been developed and tested in clinical trials to target GEF, mutant KRAS-GDP or downstream signalling, which are outlined in the schematic. Also, a mRNA vaccine against various *KRAS* mutations and an exosome which targets *KRAS*^{G12D} have been developed and being tested in phase I clinical trials.

Drug/treatment strategy	Target	Status
GI-4000 KRAS vaccine	Oncogenic KRAS	Phase I/II (49, 50)
iExosome (Exosome with *KRAS*^{G12D} siRNA)	*KRAS*^{G12D}	Phase I (51)
BI-3406	SOS	Phase I (52)
Sotorasib	KRAS^{G12C}	FDA approved 2021 (16, 45)
Adagrasib	KRAS^{G12C}	FDA approved 2022 (22, 46, 47)
MRTX1133	KRAS^{G12D}	Pre-clinical (53-55)
Combination of AKT inhibitor MK-2206 and MEK inhibitor selumetinib	Downstream signalling of KRAS	Minimal clinical activity in phase II trial (56)

Table 1.1 KRAS targeted treatments in development or approved

In addition, *KRAS*^{G12C} mutations exists in only a small proportion of tumours outside lung but development of inhibitors targeting other KRAS mutants, such as KRAS^{G12D} (53-55), promises potential in treating other *KRAS* mutant-tumours in the future. Besides small chemical inhibitors, mutated KRAS could be targeted by engineered exosomes carrying short interfering RNAs, which Kamerkar *et al* successfully generated to target *KRAS*^{G12D} (57) and is being assessed in phase I clinical trials (51). A vaccine targeting multiple mutated RAS has also been produced, which has been well tolerated by CRC, NSCLC and pancreatic cancer patients (49, 50). Although there appears to be some potential behind immunotherapy-based strategies, mutated KRAS is known to polarise the immune cell populations to a more immunosuppressive phenotype (58-61), which may limit the efficacy of these treatment types.

More promisingly was the development of SOS inhibitors to impede GTP loading onto RAS irrespective of its mutational status and so has been dubbed a pan-KRAS inhibitor (52). Although the SOS inhibitor developed by Boehringer was not effective for *KRAS* G12R or Q61 mutations, it was

effective for all other G12 and G13 mutations and is being investigated in phase I clinical trials (52).

Studies have also attempted to target KRAS by inhibiting its downstream effectors but it has had limited success due to the complex nature of signalling. For ERK pathway inhibitors, resistance is mediated by the paradoxical ERK activation due to the relief of the negative feedback loop whereby ERK promotes Rapidly Accelerated Fibrosarcoma (RAF) inactivation. Combined treatment of PI3K pathway inhibitors with mitogen activated protein kinase kinase 1 (MAP2K1/MEK) inhibitors showed potential in treating *KRAS* mutant-cancers *in vivo* (62, 63) but clinical trials have demonstrated minimal clinical activity with this combination strategy in *KRAS* mutant-CRC (56).

However, KRAS-driven signalling is far more complex beyond cancer cells in isolation, especially as mutated KRAS activity seems to be dependent on external stimuli (64-66). Therefore, better understanding on signalling in *KRAS* mutant-cancer cells and its response to cancer drug treatment in the context of the tumour microenvironment is critical in improving therapeutic strategies in targeting KRAS.

1.3 The role of the tumour microenvironment with drug response

The majority of drug resistance studies have focused on cancer cells alone where various mechanisms have been identified and has directed research to improve treatment in overcoming resistance. These include the identification of drug export transporters in chemotherapy resistance (e.g ATP binding cassette transporter family members) (67) and protein alterations due to

acquired mutations with targeted therapy resistance (e.g $EGFR^{T790M}$ mutation in NSCLC patients in response to 1st generation EGFR inhibitors) (68).

It is only recently that drug resistance studies have started to consider the tumour microenvironment holistically, especially as factors and cell-cell interactions from stromal cells can influence cancer progression. Therefore, this project investigates the role of CAF secreted proteins in affecting drug response in *KRAS* mutant-cancer cells as a relatively understudied area of drug resistance.

The tumour microenvironment is complex and can contain a host of extracellular elements (e.g. collagens) and non-cancer cells including CAFs and immune cells (e.g myeloid derived suppressor cells and cytotoxic T cells) to name a few (69). All the components of the tumour microenvironment can both be impacted by drug treatment and influence drug response through multiple mechanisms, which are summarised in Figure 1.3.

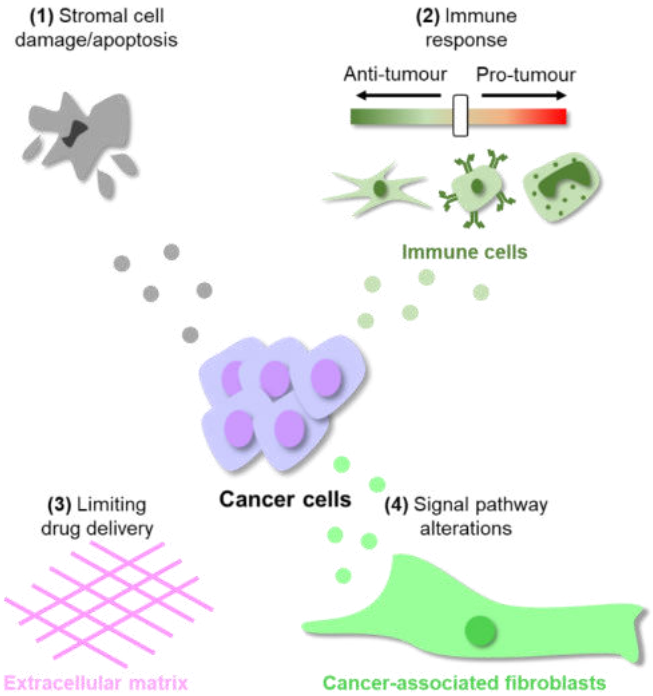


Figure 1.3 The effect of the tumour microenvironment on drug response The tumour microenvironment can be both impacted by drug treatment and influence drug response. **(1)** Stromal cells can undergo DNA damage and apoptosis in response to drug treatment. Consequently, DNA damage can promote cytokine secretion which can facilitate cell survival. **(2)** Cell damage induces an immune response, which can either have anti-tumourigenic or pro-tumourigenic activity. **(3)** The tumour microenvironment, especially the extracellular matrix, can block drug delivery. **(4)** Also, the stromal cells, including cancer-associated fibroblasts, can alter the signalling network to promote drug resistance through stromal cell-derived signalling molecules or through cell-cell contacts.

Stromal cells can undergo DNA damage and apoptosis in response to cytotoxic drugs, which can alter the tumour microenvironment composition. For instance, reduced neutrophil levels, known as neutropenia, is a common side effect of chemotherapy (70, 71). Paradoxically, DNA damage within stromal or cancer cells can increase cytokine secretion, which can be exploited by cancer cells for survival (72-74). Also, drug treatment can impact the microenvironment to be immunosuppressive or immune active (75-77) but the exact polarisation in response to specific drugs has been controversial, which may be primarily due to differences in experimental models.

As cancer survival is facilitated by immune evasion, there has been increasing efforts in immunotherapy to manipulate the immune system to eliminate cancer cells. Checkpoint inhibitors is a common form of immunotherapy whereby it blocks the interaction between cancer cells and T cells that lead to T cell inactivation. For instance, chronic inflammation causes exhausted T cells to express programmed cell death protein 1 (PD-1) and nivolumab prevents PD-1 on T cells from interacting with the ligand on cancer cells which inhibit T cell proliferation and reduce cytokine production (78). Nevertheless, checkpoint efficacy depends on partially functional T cells to mediate anti-tumour activity and so complete T cell fatigue and an immunosuppressive environment mediates resistance.

Limiting drug delivery is another mechanism by which the tumour microenvironment modulates drug response, especially with a dense stromal network and chaotic vascular architecture. Pancreatic cancer mouse models demonstrated that poor vascularisation and high interstitial fluid pressures reduced drug delivery (79-81) and so Olive *et al* hypothesised that sonic hedgehog (SHH) signalling pathway inhibitor (IPI-926) would facilitate gemcitabine delivery because the hedgehog pathway is a critical inducer of desmoplasia (79). Although IPI-926 treatment decreased the stroma population and enhanced gemcitabine concentrations in mice, phase I and II trials using gemcitabine in combination with IPI-926 did not improve overall survival (82). Alternatively, both Provenzano *et al* and Jacobetz *et al* targeted hyaluronan, which is strongly associated with desmoplasia, with PEGylated human recombinant PH20 hyaluronidase (PEGPH20) (80, 81). This resulted in enhanced doxorubicin and gemcitabine uptake and increased survival in mice with pancreatic cancer. Corroborating this, phase I/II studies demonstrated that PEGPH20 combined with gemcitabine alone or gemcitabine with albumin-bound paclitaxel was well tolerated and improved overall survival (83, 84). Contrastingly, the combination of PEGPH20 with the conventional therapy of mFOLFIRINOX (a modified regimen of oxaliplatin, leucovorin, irinotecan and fluorouracil) caused toxicities, including increased thromboembolism (85).

As well as being a barrier for drug delivery, stromal cells are a major source of signalling molecules, which can innately affect drug response. Proteins secreted by stromal cells, in particularly CAFs, which are associated with drug resistance include, but are not limited to, wnt (86-88), interleukins (89-92),

hepatocyte growth factor (HGF) (93-95), and chemokines (96, 97). However, the majority of these studies focus on a single drug or protein of interest whilst McMillin *et al* and Straussman *et al* are the only key studies which investigate a panel of drugs (92, 93). Although McMillin *et al* highlighted stromal cell derived interleukin-6 (IL-6) promoted doxorubicin resistance in multiple myeloma, they primarily focused on bone marrow stromal cells and did not investigate CAFs. Furthermore, they only studied IL-6 as a known stromal cytokine without considering other secreted proteins that may mediate this effect. In contrast, Straussman *et al* identified HGF as a mediator of BRAF inhibitor resistance promoted by stromal cells through using an antibody-based array, which can detect hundreds of proteins, and they only assessed the AKT and ERK pathways in relation to RAF B type (BRAF) inhibitor resistance. Therefore, Straussman *et al* had a targeted approach in their analysis where a global overview of the stromal cell ligands and signalling network changes mediated by the stroma may provide further understanding on BRAF inhibitor resistance.

Collectively, the current literature on the tumour microenvironment and drug response emphasise the multifactorial nature of drug resistance and the need to incorporate stromal cells and/or their secreted factors to further understand the mechanisms behind drug resistance.

1.4 Cancer-associated fibroblasts

This project involves studying the role of one of the most abundant stromal components, CAFs, as a starting point for our research. Since CAFs are genetically stable compared to cancer cells (98, 99), CAFs are considered a potential drug target and targeting CAF pro-tumourigenic activities as opposed

to depleting them may be more favourable due to the issue that CAFs may have both tumour supportive and tumour inhibitory action [Reviewed (100, 101)].

Research involving CAFs in high-throughput drug screens with unbiased secreted protein profiling and (phospho)proteome analysis in *KRAS* mutant-cancer cells remains to be investigated, which will provide further insight into potential treatment strategies to overcome drug resistance.

1.4.1 Origins and characterising cancer-associated fibroblasts

Fibroblasts were first described by Virchow around 1858 as collagen synthesising cells in connective tissue (102). It was not until the 1970s when Gabbiani identified fibroblasts with contractile properties in newly synthesised connective tissue as “myofibroblasts” and hypothesised that they had a role in wound healing since it was also found in fibrosis (103). Myofibroblasts were initially studied in wound healing but myofibroblasts were then first observed in solid tumours by Tremblay’s lab in 1979 (104). Therefore, myofibroblasts and CAFs are terms often used synonymously. Also, pancreatic stellate cells (PSC) are myofibroblast like cells in the pancreas and so activated PSC has been also been used interchangeably with CAFs (105).

In normal physiological conditions, resting fibroblasts reside in the interstitial space and become activated upon wound healing, which is thought to be reversed by genetic reprogramming or apoptosis (102, 106, 107). Fibroblasts are most commonly known to be activated by transforming growth factor-β (TGF-β) (108) and reactive oxygen species (ROS) (109) generated through tissue injury.

On the contrary, CAFs are persistently active and the consensus is that CAFs are derived from resident fibroblasts or stellate cells due to the chronic wound healing response whereby these resident cells are activated by ROS (109) or growth factors produced locally by cancer cells (108, 110-114). Bone marrow progenitors may also contribute to a small proportion of CAFs, which have been highlighted by cell tracking studies (115, 116). Perhaps a more controversial theory is CAFs derived from epithelial cells since it is primarily based on a study by Petersen *et al* where a cell line from a breast cancer patient had "myofibroblast" properties, such as α-smooth muscle actin (ACTA2/α-SMA) and vimentin expression, but it had keratin expression and could form epithelial tumour microfoci (117).

Persistent activation in CAFs is thought to be regulated by epigenetic modifications and positive signalling feedback loops. In the case of epigenetic modifications, CAFs are hypermethylated compared to resting fibroblasts and Albrengues *et al* found that leukaemia inhibitory factor activates signal transducer and activator of transcription 3 (STAT3), which upregulates DNA methyltransferase and methylation at the promoter of Janus kinase 1 (JAK1) phosphatase *SHP1* and so allows JAK/STAT3 signalling and hypermethylation to be sustained (112). In addition, autocrine TGF-β signalling (113) and cytoskeletal tension promoted by protein kinase N2, dickkopf 3 and yes-associated protein 1 (YAP1) signalling facilitates a positive feedback loop in CAF activation (118-120).

Conventionally, activated fibroblasts, including CAFs, are characterised by high ACTA2/α-SMA but its expression is not high in all CAFs (121-123). CAFs can also be identified by positive expression of fibroblast activation protein

(FAP) and mesenchymal markers, such as vimentin, but negative expression of epithelial markers, such as epithelial cell adhesion molecule (EPCAM), or endothelial markers, such as CD31 (124, 125).

The variation in conventional CAF marker ACTA2/α-SMA expression between CAFs may be due to CAF heterogeneity in terms of origin and function. Work from Tuveson's lab have characterised three different CAF subtypes from human and mouse pancreatic tumours (121, 122, 126). CAFs with high levels of ACTA2/α-SMA are termed myofibroblast CAFs (myCAFs) whilst CAFs with low levels of ACTA2/α-SMA but high cytokine and chemokine secretion are termed inflammatory CAFs (iCAFs). The third CAF subtype is antigen-presenting CAFs (apCAFs) which express major histocompatibility complex II and activate $CD4^+$ T cells. myCAFs and iCAF signatures were corroborated in the independent single cell analysis study on pancreatic tumours (127) and breast tumours (128, 129) but Wang *et al* also identified pancreatic CAFs with high active glycolysis as another subtype (127). Moreover, apCAF signatures were supported by studies on lung tumours (130) and breast tumours (128, 129). On the other hand, Lambrechts *et al* have defined five fibroblast subtypes from lung cancer patients, each with unique collagen profiles and differential pathway activities (131), but this fibroblast subtype classification is not as widely established or acknowledged in other papers.

It has been proposed that iCAF formation is promoted by IL-1/JAK-STAT3 signalling whilst TGF-β/SMAD2/3 signalling promotes myCAF formation (122, 126) but the mode of culture can also impact the CAF phenotype because iCAFs, which are maintained in matrigels with organoid conditioned media, can convert into a myCAF phenotype if cultured onto a 2D monolayer (121).

As a result, how the CAFs were selected and cultured may contribute to any apparent observed differences in CAF interactions on cancer cells between studies. With the diversity of CAF cell line models, this makes it critical for information on the CAF origin, CAF marker profile, culture conditions and any manipulations applied to be well-documented so that the role of CAFs in cancer can be contexualised.

1.4.2 Studying the interactions between CAFs and *KRAS* mutant-cancer cells

One of the major mechanisms by which cells can interact with each other is through secreted proteins, which is the focus of this project. Thus, defining the secretome, which is a collection of secreted proteins from a cell population, holds potential in understanding how different cell types interact and how certain diseases, including cancer, progress. Proteins can be released into the extracellular space through classical or non-classical secretory pathways (132, 133) where classical secretion occurs via the endoplasmic reticulum (ER)/Golgi whilst non-classical secretion of proteins that lack a signal peptide can occur through various pathways, including by direct translocation, via an ABC transporter, through membrane-bound organelles or bypassing the Golgi (Figure 1.4).

The secretome can be characterised using media extracted from cell culture, also known as conditioned media (CM), and mass spectrometry analysis offers an unbiased global search for secreted proteins where the advantages and challenges to this approach is further discussed in the introduction of chapter 4. Currently, there is a lack of studies which define the differentially expressed secreted proteins between CAFs and *KRAS* mutant-cancer cells by mass

spectrometry alongside functional characterisation of the secreted proteins, such as phosphoproteomics.

Studies on the interactions between CAFs and *KRAS* mutant-cancer cells have predominately focused on pancreatic cancer. Sangrador *et al* identified ZEB1 was critical for fibroblast activation and promotes KRAS-driven signalling in pancreatic cancer but they did not elucidate the secreted proteins from the fibroblasts that mediate this effect (134). Conversely, Mills *et al* found SHH from cancer cells promotes fibroblasts to secrete IL-6 and activate STAT3 signalling in pancreatic cancer, which is fundamental in cancer progression (135), but Mills *et al* did not undertake a global analysis of the signalling network which could have provided a better insight on the role of CAFs in the signalling network of *KRAS* mutant-cancer cells.

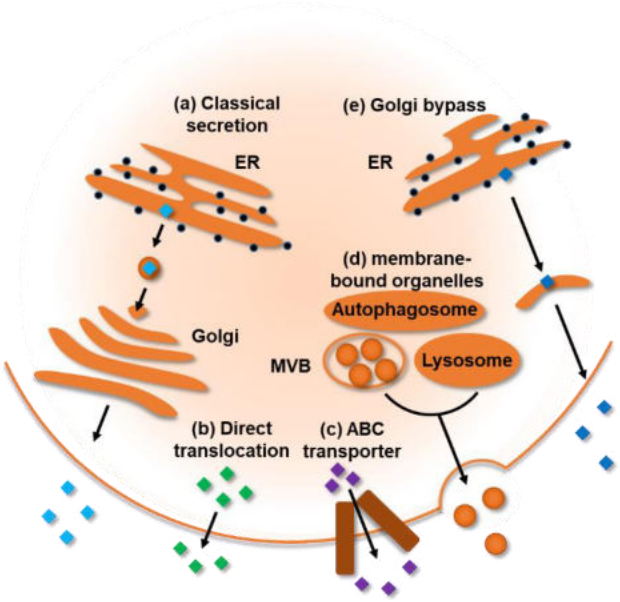


Figure 1.4 Protein secretion pathways Proteins can be secreted via **(a)** the classical secretion pathway where the protein is translocated to the endoplasmic reticulum (ER) and Golgi before reaching the plasma membrane. Alternatively, proteins can be secreted via the non-classical secretion pathway which can occur through various mechanisms. For instance, proteins can be secreted by **(b)** direct translocation, **(c)** via an ATP binding cassette (ABC) transporter, **(d)** through membrane-bound organelles or **(e)** by translocating only to the ER and bypassing the Golgi. MVB= multivesicle bodies.

In contrast, global cross-talk signalling between fibroblasts and *KRAS* mutant-pancreatic cancer cells derived from mice have been investigated by Tape *et al*, where they proposed that pancreatic cancer cells secreted SHH which activates PSC and PSC then activates the AKT pathway in cancer cells through secreted insulin growth factor 1 (IGF1) (136). Another study from Tape's lab also revealed that fibroblasts and macrophages further upregulate PI3K signalling in CRC organoids with *KRAS* mutation and *APC* deletion (137).

Further analysis on the interaction between CAFs and *KRAS* mutant-cancer cells from different human tissues would determine if the above interactions between the two cell types were pancreatic specific or common across various tissues. In addition, drug perturbation would provide deeper insight on the interactions between the two cell types beyond the basal state level and highlight the potential clinical relevance.

1.5 Overarching hypothesis and aims of project

The overarching hypothesis of my thesis was "CAFs can influence drug sensitivity/resistance in *KRAS* mutant-cancer cells via secreted proteins". To investigate this, *KRAS* mutant-cancer cell lines and CAF cell line models from colorectal, lung and pancreatic tissues were studied and the aims of my project were to:

1. Characterise the basal state proteome in *KRAS* mutant-cancer cells and CAFs for the definition of CAF and tumour features to contexualise the downstream analysis **(Chapter 3)**

2. Characterise the secreted proteins (secretome) in *KRAS* mutant-cancer cells and CAFs and any differences between them using mass spectrometry **(Chapter 4 part 1)**

3. Study the effect of the CAF secreted proteins on the phosphoproteome and proteome in *KRAS* mutant-cancer cells **(Chapter 4 part 2)**

4. Study the effect of the CAF secreted proteins on drug response in *KRAS* mutant-cancer cells using a bespoke panel of 97 anti-cancer drugs **(Chapter 5)**

5. Understand the mechanism of action by which CAF secreted proteins affect drug response in *KRAS* mutant-cancer cells using mass spectrometry for global (phospho)proteome analysis and antibody-bead based assays for targeted (phospho)proteome analysis **(Chapter 6)**

The above aims are summarised in Figure 1.5. Therefore, this approach is data-driven with the use of a wide panel of clinically relevant cancer drugs and global secretome and (phospho)proteome analysis by mass spectrometry guiding our investigation on potential CAF-mediated drug response in *KRAS* mutant-cancer cells as opposed to most studies which are based on single hypothesis focusing on a specific drug or secreted factor of interest. Furthermore, media harvested from cell cultures (CM samples) were primarily used to characterise the secretome and to culture the *KRAS* mutant-cancer cells so that the mechanism by which CAFs affect signalling and drug response can be systematically determined.

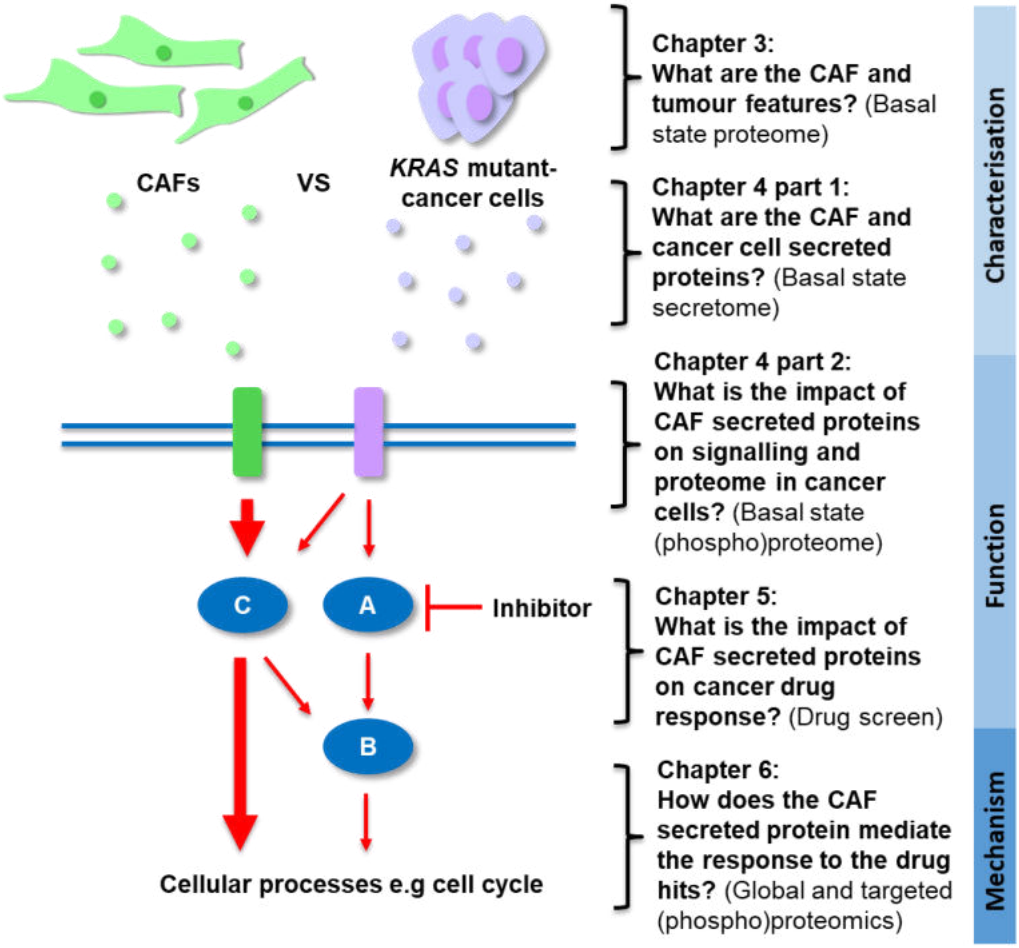


Figure 1.5 Thesis outline To investigate how secreted proteins from cancer-associated fibroblasts (CAFs) affect *KRAS* mutant-cancer cells through influencing drug response and signalling, the project was split into different aims and are detailed as individual chapters as demonstrated by this schematic. Proteome and secretome analysis of the cell lines characterise the differences between CAFs and *KRAS* mutant-cancer cells. The impact of the CAF secreted proteins on the (phospho)proteome by mass spectrometry and on drug response using a drug screen defines the function of the CAF secreted proteins. From the drug screen, global and targeted (phospho)proteomics by mass spectrometry and antibody-bead based assays, respectively, elucidates the mechanism of action by which CAF secreted proteins influence drug response.

Chapter 2 Methods

2.1 Cell culture

The following cell lines were used: Colorectal and lung CAFs (VitroBiopharma, lot 001A and 002A, respectively); colorectal cancer H747 cells (ATCC), LIM2099 (PHE) and SW620 cells (Sigma); endothelial cells HUVEC (ATCC); keratinocyte Ker-CT (ATCC), lung cancer H2030 (ATCC), H1792 and H23 cells (donated by Prof. Julian Downward); lung fibroblasts MRC5 (ATCC); pancreatic cancer CAPAN1, DANG, MIAPACA2 cells (donated by Dr. Anguraj Sadanandam); PSCs (ScienCell, lot 14289), RPE1 (donated by Dr. Peter Martin) and RWPE1 (donated by LeAnne Carmichael).

All cell lines have been authenticated by ATCC short tandem repeat (STR) profiling and are routinely checked for *Mycoplasma*. All cell lines were cultured in a 5% CO_2, 37°C incubator with humidified atmosphere.

All cell lines (except for HUVEC, Ker-CT, MRC5 and RWPE1) were grown in Dulbecco's Modified Eagle Medium/Nutrient Mixture F-12 (DMEM-F12) media (ThermoFisher Scientific) supplemented with 10% foetal bovine serum (FBS; ThermoFisher Scientific, lot 2079409), 2 mM L-glutamine (ThermoFisher Scientific) and 1% non-essential amino acids (Sigma). The feasibility of growing the cell lines in supplemented DMEM-F12 as opposed to media recommended by the manufacturer was previously assessed by monitoring cell growth using Incucyte Zoom (Essen Bioscience).

HUVEC was grown in F12K media (ThermoFisher Scientific) supplemented with 10% FBS, 0.1 mg/ml heparin (Sigma) and 30 µg/ml endothelial cell growth serum (Corning). Ker-CT was grown in KGM Gold Bulletkit (Lonza). MRC5 was grown in Eagle's Minimum Essential Media (ThermoFisher Scientific)

supplemented with 10% FBS. RWPE1 was grown in Keratinocyte serum free media (ThermoFisher Scientific).

Some key known mutations of the cancer cell lines are listed in Table 2.1 and the known mutations of the CAFs are listed in Table 2.2.

Cell line	**Origin**	***KRAS* mutation**	**Some key known mutations**
H747	Metastasis in a common duct node from a 69 year old male Caucasian colorectal adenocarcinoma patient prior to therapy	G13D	$P53^{R158L}$
LIM2099	Liver metastasis from a colorectal adenocarcinoma patient	G12C	P53 wildtype
SW620	Lymph node metastasis from a 51 year old male Caucasian colorectal adenocarcinoma patient	G12V	APC^{Q1338*}, $P53^{R273H/R309S}$, SMAD4 null
H1792	Pleural effusion from a 50 year old male Caucasian lung adenocarcinoma patient who smoked	G12C	P53c.672+1G>A
H2030	Lymph node metastasis from a male lung adenocarcinoma patient who was a non-smoker	G12C	$P53^{G262V}$
H23	51 year old male Black lung adenocarcinoma patient prior to therapy	G12C	$LKB1^{W332*}$, $P53^{M246I}$
CAPAN1	Liver metastasis from a 40 year old male Caucasian pancreatic adenocarcinoma patient	G12V	$P53^{A159V}$, $SMAD4^{S343*}$
DANG	68 year old female pancreatic adenocarcinoma patient	G12V	P53c.972_993+16del38
MIAPACA2	65 year old male Caucasian pancreatic adenocarcinoma patient	G12C	CDKN2A null, $P53^{R248W}$

Table 2.1 Cancer cell line origin, *KRAS* mutation and other known mutation statuses
*= stop codon.

Cell line	*KRAS* mutation	*p53* mutation	Other known mutations
Colorectal CAF	Wildtype	Wildtype	$ATRX^{H865Q}$, BIVM-$ERCC5^{S904N}$, $BRCA1^{I1473T}$, $EPCAM^{A165T}$, $FANCA^{S858R}$, $FANCD2^{D662Y}$, $MAP3K1^{N255S}$, MET^{T1010I}, $NTRK1^{G613V}$, $PIK3CG^{R359H}$, $TSC1^{D872N}$, WRN^{V114I}
Lung CAF	Wildtype	Wildtype	ATM^{D1853N}, $CHEK1^{R160C}$, $FANCF^{T127I}$, $MUTYH^{G396D}$, $NOTCH2^{V1667I}$, $PIK3CA^{I391M}$
PSC	Wildtype	Wildtype	$MTOR^{I218L}$, $PIK3CG^{T857A}$, $RAD50^{V127I}$, $TSC1^{G1035S}$, XPC^{K481}

Table 2.2 Cancer-associated fibroblast (CAF) known mutation statuses

2.2 Basal state proteome sample preparation

Cell pellets were generated by washing the cell resuspensions in phosphate buffered saline (PBS, ThermoFisher Scientific) on ice twice and snap frozen after excess liquid was removed. Cell pellets were prepared in triplicates for each cell line. Initially, cell pellets were lysed with sodium deoxycholate (SDC) lysis buffer [1% SDC, 100 mM triethylammonium bicarbonate (TEAB, Sigma), 10% glycerol, 50 mM NaCl] with Halt™ protease and phosphatase inhibitor cocktail (final concentration 1x, ThermoFisher Scientific). Cell pellet samples were completely homogenised with probe sonication (EpiShear) for 15 seconds at 40% power with 1 second on and 1 second off, heated at 90°C for 5 minutes and then the probe sonication was repeated. Proteins were quantified using Pierce Rapid Gold Bicinchonic Acid Assay (BCA) protein assay kit (ThermoFisher).

Additionally, 20% sodium dodecyl sulfate (SDS, Sigma) was added to the previous lysate to 5% (final) and proteins were quantified again in the same manner.

100 µg protein was taken from each sample and lysis buffer was added so each sample were at the same volume. Proteins were reduced using 10 or 20 mM tris(2-carboxyethyl)phosphine hydrochloride solution (TCEP, Sigma) at 60°C for 30 minutes for the SDC and SDS lysate, respectively. Proteins were

then alkylated in 5 mM iodoacetamide (IAA, Sigma) for 30 minutes at room temperature (RT) in the dark. For the SDS lysates, protein was precipitated by chloroform/methanol precipitation and the protein pellet was resuspended in 100 µL 100 mM TEAB. Protein from samples derived from both the SDC and SDS lysates were digested by 3.3 µg trypsin (Pierce) (trypsin:protein = 1:30 (w:w)) at 37°C for 18 hours with shaking.

For SDC lysed samples, 30 µg protein were labelled with 0.25 mg TMTpro™ 16plex reagents (in 10 µl extra dry acetonitrile (ACN)) (ThermoFisher Scientific) according to the manufacturer's instruction. For SDS lysed sample, 50 µg proteins were labelled with 0.5 mg TMTpro™ reagent in 20 µl ACN. After 1 hour incubation at RT and 15 minutes quenching by 4 µl of 5% hydroxylamine (ThermoFisher Scientific), the labelled samples were combined and precipitated using 20 µl formic acid (FA) (Honeywell Fluka). After centrifugation, the supernatant was dried in Speedvac.

The samples were resuspended in 0.1% ammonium hydroxide (NH_4OH)/100% H_2O, and fractionated on an XBridge BEH C18 column (2.1 mm i.d. x 150 mm, Waters) with an initial 5 minutes loading then linear gradient from 5% acetonitrile/0.1% NH_4OH (pH 10) - 35% ACN/0.1% NH_4OH in 30 minutes, then to 80% ACN/0.1% NH_4OH in 5 minutes and stayed for another 5 minutes. The flow rate was at 200 µl/min. Fractions were collected at every 42 seconds from retention time from 7.8 minutes to 50 minutes and then concatenated to 28 fractions and dried in SpeedVac. Samples were then resuspended in 0.5% FA for LC-MS/MS analysis.

2.3 Optimisation of secretome sample preparation

Conditioned media (CM) was prepared by culturing the cells to approximately 60% confluence, washing the cells with PBS and serum free media and adding 20 ml of serum free media for 24 hour incubation. Upon harvesting the CM, the CM was centrifuged briefly to remove any cellular debris, filtered using a 0.2 µm filter and stored at -80°C for downstream processing. In the optimisation stage in assessing the appropriate method to retrieve the protein from the CM, 0.13 µg/ml α-amylase was added as a protein standard for the CM aliquot sample at 7 ml, resulting in a total amount of 0.91 µg α-amylase. The following four different methods were assessed in duplicates: filter aided sample preparation (FASP) with 4 different type of filters, direct in-solution digestion then desalted by C18, trichloroacetic acid (TCA) precipitation and on-beads digestion using StrataClean resin (Agilent).

For FASP, Vivaspin Hydrosart 15R (2000 MWCO), Vivaspin 20 (3000 MWCO), Vivaspin Turbo 5 (5000 MWCO) (Sartorius) and Amicon Ultra-4 (3000Da MWCO, Millipore) filters were used whereby the filters were initially washed with 1 M TEAB (Sigma) once and then 100 mM TEAB twice. Proteins in the above CM aliquot were reduced by 5 mM TCEP (Sigma) at RT for 10 minutes and then alkylated by 5 mM IAA (Sigma) for 30 minutes at RT in the dark. The CM aliquot samples were applied to the filters and centrifuged as per manufacturer's instructions until all 7 ml of the CM aliquot sample was reduced to the sample volume of ~100 µl. The sample was then buffer exchanged twice with 100 mM TEAB. 1 ml 100 mM TEAB was added to cover the filter and 1 µg trypsin (Pierce) digested the protein at 37°C for 18 hours. The digest was collected and the filter was rinsed with 1 M TEAB once and

pooled to the previous collected digest where this fraction was named as 'P1'. The filter was then further rinsed with 100 mM TEAB/50% methanol and the supernatant was collected and named as 'P2'. 20 µl of P1 out from ~1400 µl was taken out and checked by liquid chromatography with tandem mass spectrometry (LC-MS/MS). The main P1 and P2 were pooled and dried in SpeedVac and desalted using self-packed spin tip of ReproSil C18 (ReproSil-Pur 120 ODS-3, 50 µm, Dr. Maisch). The test LC-MS/MS run showed poor peptide recovery when Vivaspin 20 and Vivaspin Turbo 5 filters were used. Therefore, only samples processed by Vivaspin Hydrosart and Amicon filters were used in the comparison with other non-FASP methods.

For direct in-solution digestion, 700 µl of 1 M TEAB was added to the CM sample. Proteins were reduced, alkylated and tryptic digested as described above for FASP. Samples were desalted either by tC18 Sep-Pak (Waters) or Reprosil C18 then dried in SpeedVac.

For TCA precipitation, proteins were reduced and alkylated as described above for FASP. 100% TCA (w/v) was added to the sample to 20% (final). The mixture was vortexed and left in freezer overnight. The frozen samples were defrosted the next day and centrifuged at 21,000 x g for 15 minutes at 4°C. Supernatant was removed and the protein pellet was washed twice with ice-cold acetone with centrifugation for 5 minutes each time. The protein pellet was resuspended in 100 mM TEAB and digested by trypsin as described above for FASP and dried in SpeedVac.

For on-bead digestion, 100 µL of StrataClean beads (Agilent) was added to the CM aliquot sample and the mixture was incubated at RT for 10 minutes

with rotation. The resin was pelleted after centrifugation at 2000 x g for 30 seconds and the supernatant was removed. The beads were resuspended in 1 ml 100 mM TEAB and pelleted again followed by two washes with 100 mM TEAB. 200 µl of 100 mM TEAB was added to the beads. Proteins were reduced, alkylated and tryptic digested as described above for FASP. Peptides were collected when the beads were pelleted. The beads were washed twice with 50% ACN/0.5% FA and both supernatants were collected and pooled to the initial collected peptide solution and then dried in SpeedVac.

All the samples from the two FASP methods by Hydrosart and Amicon filters and the four non-FASP methods were resuspended in 40 µl of 100 mM TEAB and labelled with 0.5 mg TMTpro™ 16plex reagents (ThermoFisher Scientific). The samples were quenched, combined, precipitated and dried in the same manner as described in the basal state proteome preparation section. The mixture was resuspended in 300 µl of 0.2% trifluoroacetic acid (TFA)/100% H_2O and then desalted and fractionated using the Pierce™ High pH Reversed-Phase Peptide Fractionation Kit (ThermoFisher Scientific) according to the manufacturer's instruction. Six fractions were collected at different ACN percentage in 0.1% trimethylamine/100% H_2O: 10, 12.5, 15, 17.5, 20 and 50% ACN. Fractions were dried in SpeedVac and resuspended in 0.5% FA/H_2O before LC-MS/MS analysis.

2.4 Basal state secretome analysis

The sample preparation used TCA precipitation method based on the above optimisations where TCA precipitation identified the highest number of secreted proteins and had the highest sum of protein abundance.

Furthermore, it had the least number of experimental steps and minimal sample transfers between tubes which minimise the risk of protein loss.

CM were prepared in triplicates for each cell line. Proteins in the CM were reduced by 5 mM TCEP (Sigma) at 56°C for 30 minutes and alkylated by 10 mM IAA (Sigma) for 30 minutes at RT. TCA was added as per the above optimisation but left in ice for 1 hour and centrifuged at 21,000 x g for 10 minutes. The protein pellet was resuspended in 100 mM TEAB and 2 µg trypsin (Pierce) digested the protein at 37°C for 18 hours with shaking. The digested samples were dried in SpeedVac completely, re-dissolved in ACN/H_2O mixture and SpeedVac dried completely again. The dried samples were re-dissolved in water, and peptide concentrations were measured by nanodrop at A280nm. 20 µg peptides per sample was taken for TMTpro™ 16plex (ThermoFisher Scientific) labelling as per the basal state proteome preparation section. The samples were resuspended in 0.1% NH_4OH/100% H_2O and fractionated the same as in basal state proteome sample preparation section but concatenated to 6 fractions and dried in SpeedVac. Samples were then resuspended in 0.5% FA for LC-MS/MS analysis.

2.5 Phosphoproteome and total proteome analysis

For the basal state phosphoproteome and total proteome analysis, CM was prepared fresh after 48 hour incubations in the appropriate cell lines and the harvested media were used to seed and grow cancer cells. 96 hours after growing the cells in the appropriate CM, cell pellets were generated by washing the cell resuspensions by cold PBS twice and snap frozen after excess liquid was removed. This was undertaken in triplicates.

For the phosphoproteome and total proteome analysis with drug treatment in cells incubated with cancer or CAF CM, the CM was prepared and harvested in the same manner as above. 24 hours after seeding, the cells were treated with the appropriate drug at 3x 50% growth inhibition (Gi50) and 24 hours after treatment, the cell pellets were generated as described above. This was undertaken in triplicates but only two replicates were processed for phosphoproteome and total proteome analysis.

Cell pellets were lysed with lysis buffer [1% SDC, 100 mM TEAB, 10% isopropanol, 50 mM NaCl] with Halt™ protease and phosphatase inhibitor cocktail (1x, ThermoFisher Scientific). Cell pellet samples were sonicated, heated and quantified in the same manner as described in the basal state proteome preparation section.

60 µg protein was reduced using 5 mM Bond-Breaker™ TCEP solution (ThermoFisher Scientific) at 60°C for 30 minutes and alkylated by 10 mM IAA for 30 minutes at RT in the dark. Protein was digested by 3 µg trypsin (Pierce) (trypsin:protein = 1:20 (w:w)) at RT for 18 hours with shaking.

Protein was labelled using 0.5 mg TMTpro™ 16plex or 0.4 mg TMT10plex reagents (ThermoFisher Scientific) and then quenched, combined, precipitated to remove SDC and dried in the same manner as described in the basal state proteome preparation section.

The samples were resuspended in 0.1% NH_4OH/100% H_2O and fractionated the same as in basal proteome sample preparation section but concatenated to 37 fractions and dried in Speedvac. The first 24 fractions underwent phosphopeptides enrichment using High-Select Fe-NTA phosphopeptide

enrichment kit (ThermoFisher) where 1/3 of resin in each spin column was used for each fraction. The immobilised metal affinity chromatography (IMAC) enriched phosphopeptides from last five fractions (#20 - # 24) were pooled. Therefore, there were 20 phosphopeptides fractions in total for LC-MS/MS analysis. The IMAC flow through of these 24 fractions were saved where the first 10 fractions were pooled to 3 fractions and so resulted in 17 fractions from the IMAC flow-through in total. These 17 fractions plus the untouched 13 fractions (#25 - #37) (total 30 fractions) were used for total proteome analysis. All the phosphopeptide and total proteome fractions were dried in SpeedVac and resuspended in 0.5% FA for LC-MS/MS analysis.

2.6 LC-MS/MS analysis

LC-MS/MS analysis was on the Orbitrap Fusion Lumos mass spectrometer coupled with U3000 RSLCnano UHPLC system. All instrument and columns used below are from ThermoFisher Scientific.

For the basal state proteome analysis and the optimisation of the secretome sample preparation, 50% of the peptides were injected. The LC-MS/MS run was 120 minutes for each fraction where the peptides were first loaded to a PepMap C18 nanotrap (100 µm i.d. x 20 mm, 100 Å, 5 µm) at 10 µl/min with 0.1% FA/H_2O, and then separated on a PepMap C18 column (75 µm i.d. x 500 mm, 100 Å, 2 µm) at 300 nl/min with a linear gradient of 8-32% ACN/0.1% FA for 90 minutes. The data acquisition used standard data-dependant acquisition mode with a cycle time at 3 sec. The full MS scans (m/z 375-1500) were acquired in Orbitrap with a resolution at 120,000 at m/z 200 and the automatic gain control (AGC) was set at 100,000 with maximum injection time at 50 msec. The most abundant multiply charged ions (z = 2 – 5) with intensity

threshold at 5000 counts were isolated by quadrupole at the isolation window at 0.7 Da and then subjected to MS/MS fragmentation by Collision Induced Dissociation (CID) in ion trap at 35% normalised collision energy (NCE). The AGC was set at 10,000 and maximum injection time at 35 ms. The TMT reporter ions were detected by further fragmentation of the 5 most abundant fragment ions produced in MS2: they were isolated by synchronous precursor selection (SPS) method with the isolation width at 0.7 Da, and fragmented by higher energy collisionally activated dissociation (HCD) at 55% NCE and detected in the Orbitrap in a scan range 100-500 m/z. The resolution was set at 50,000 at m/z 200, the AGC at 50,000 with maximum injection time at 86 msec. The dynamic exclusion was set 40 sec with ± 10 ppm mass tolerance.

The LC-MS/MS analysis test for the FASP samples was similar to the basal state proteome analysis but with these differences: the LC-MS/MS run was 90 minutes with the LC gradient for 60 minutes, the multiply charged ions with intensity above 7000 counts were fragmented in HCD (30% CE) and detected in ion trap, where AGC was set at 10,000 with maximum injection time at 40 msec.

For the basal state secretome analysis, 25% of the peptides were injected and the LC-MS/MS analysis was similar to the basal state proteome but with modifications. The LC-MS/MS run was 180 minutes with the LC gradient for 150 minutes. The MS acquisition on multiply charged ions (2+ to 6+) with intensity above 10,000 were fragmented in HCD at 36% collision energy, with isolation width at 0.7 Da in quadrupole and detected in Orbitrap in the scan mode of defined first m/z at 100. The resolution was set at 50,000 at m/z 200,

and the AGC at 100,000 with maximum injection time at 86 msec. The dynamic exclusion was set at 45 sec with ±7 ppm mass tolerance.

The LC-MS/MS analysis of the phosphoproteome and related total proteome was similar to the above, i.e. MS2 fragmentation was by HCD and the detection in Orbitrap. All phosphopeptides were injected for the phosphoproteome but for the total proteome, 20% and 12.5% of the peptides from the 10plex and 16plex were injected, respectively. The most abundant multiply charged ions (z = 2 – 6) with intensity threshold at 10,000 were fragmented by HCD at 36% NCE for TMTpro samples or 38% NCE for TMT10plex samples. The dynamic exclusion was set for 30 sec for phosphopeptides and AGC was set at 100,000 with maximum injection at 100 msec for phosphopeptides or 86 msec for total proteome. The dynamic exclusion was set 40 sec with ± 7 ppm mass tolerance. For the first 10 fractions of phosphopeptides and all total proteome fractions, the LC-MS/MS run was 120 minutes for each fraction with the linear gradient over 5-38% ACN/0.1% FA at 90 minutes. The remaining 10 fractions of phosphopeptides had 90 minutes LC-MS/MS run for each fraction with a linear gradient of 5-38% ACN/0.1% FA for 60 minutes.

2.7 Mass spectrometry data processing

All raw files were processed in Proteome Discoverer 2.4 (ThermoFisher Scientific) using Sequest HT to search against reviewed Uniprot database of Homo Sapiens (March 2021), cell line specific variant databases from COSMIC (April 2021) and contaminant database (from ThermoFisher Scientific). The exception was with the optimisation of the secretome sample

preparation where only reviewed Uniprot database of Homo Sapiens (February 2020) was used.

For the basal state proteome and secretome optimisation analysis, the search parameters were: trypsin with 2 maximum missed cleavage sites, mass tolerances at 20 ppm for the precursor and 0.5 Da for the fragment ions; deamidation (N, Q) and oxidation (M) as dynamic modifications and carbamidomethyl (C) and TMT(pro) (K, N-terminus) as static modifications. Peptides were validated by Percolator with q-value set at 0.01 for the decoy database search and only high confident PSMs (Peptide Spectrum Matches) were considered. Protein FDR was set at 0.01. Only master proteins were reported. For reporter ion intensity detection, the reporter ion quantifier node parameter settings were integration window tolerance at 20 ppm and integration most confident centroid for peak detection. Only unique peptides were considered for quantification. TMT(pro) Quan value correction factor, provided by the manufacturer's certificate of analysis, was applied. Co-isolation threshold was set at 100, reporter ions average S/N threshold at 3 and SPS mass matches threshold 55%. Report ions intensities were normalised by total peptide amount to correct the variation by for different protein loading in each channel, and then scaled on all average.

For the basal state secretome, phosphoproteome and total proteome analysis, the data was processed in the same manner as above but with some differences. The fragment ion tolerance was set to 0.1 Da and then dynamic modifications included phosphorylation (S/T/Y) in phosphoproteome data. No SPS mass match was applied. For phosphoproteome data, phosphorylation site probabilities were calculated by IMP-ptmRS.

All data normalisation was undertaken by RStudio (version 1.3.1093) unless stated otherwise. For the basal state proteome analysis, the protein abundance from both the SDC and SDS datasets were corrected for equal loading across samples by column median normalisation. The abundance was then scaled by dividing the abundance by the mean protein abundance (row mean) and multiplying by 100 according to TMT batch. The mean abundance for each sample between the two datasets was calculated and rescaled again according to TMT batch as before. The rescaled abundances were $\log_2$ transformed and was centred around zero by subtracting the mean protein abundance (row mean) according to TMT batch.

For the basal state secretome analysis, the protein abundance was corrected for equal loading in the same manner as above, $\log_2$ transformed and centred around zero according to TMT batch as before.

For the basal state phosphoproteome and total proteome analysis with cancer or CAF CM, the phosphopeptide redundant entries were consolidated by summing the abundance. After consolidation, both the phosphopeptide and protein abundance were separately corrected for equal loading in the same manner as above, $\log_2$ transformed and centred around zero by using the mean abundance of the 4 pools according to TMT batch: all the colorectal cancer cell samples, all the lung cancer cell samples, all the pancreatic cancer samples or all the samples (known as the superpool).

For the phosphoproteome and total proteome analysis of cells incubated in cancer or CAF CM with 24 hour 3xGi50 treatment, the phosphopeptide and protein abundance were normalised and scaled in the same manner as the

basal state phosphoproteome and total proteome analysis except the log_2 transformed abundance was centred around zero using the mean protein abundance (row mean). Due to the principal component analysis (PCA) demonstrating data outliers and noise, both the phosphoproteome and total proteome were filtered to contain proteins with valid values across all samples and the total proteome was further filtered to contain proteins that had > 3 peptides. Further normalisation was introduced to both the phosphoproteome and total proteome by using Perseus (version 1.6) where row cluster normalisation, Z score column normalisation and width adjustments were undertaken.

2.8 (Phospho)proteome and secretome bioinformatics analysis

1D functional enrichment analysis (Benjamini-Hochberg FDR=0.02), ANOVA (Permutation based FDR = 0.05, 250 randomisations), hierarchical clustering (Euclidean distance and average linkage), one-sample t-test ($p<0.05$) and two sample t-test ($p<0.05$) were undertaken using Perseus (version 1.6). Kinase enrichment analysis was undertaken by PhosFate ($p<0.05$) (138). Transcription factor enrichment was undertaken by EnrichR (139, 140).

Classically secreted proteins were predicted using SignalP version 5 (141). Non-classically secreted proteins were predicted using SecretomeP version 2 (142). Transmembrane helices in proteins were predicted using TMHMM server version 2 (143) and other transmembrane proteins were mined for using Cell Surface Protein Atlas validated entries (144) and Surfaceome (145). Other secreted ligands were mined for using FANTOM5 (146). Microvesicle proteins were mined for using vesiclepedia (147).

2.9 Public proteogenomic databases

The following proteogenomic databases were datamined: Cancer Cell Line Encyclopedia (CCLE) (9), DepMap (148), Genotype-Tissue Expression (GTEx) (149), Clinical Proteomic Tumour Analysis Consortium (CPTAC) (5-7).

Survival analysis (Log-rank/Mantel-Cox test) was undertaken using Graphpad (version 8).

2.10 Lactate dehydrogenase (LDH) assay

CM with or without 10% FBS were generated after 24 hours incubation in a similar manner as described above. As a positive control, CM from cells treated with 0.1% triton-x100 at the same time of serum containing media refreshment was used. LDH activity was measured using the LDH colorimetric assay (ab102526, abcam) as per manufacturer's instructions whereby the reduced form of nicotinamide adenine dinucleotide (NADH) standard was generated and an internal positive control containing LDH provided by the assay kit was included.

2.11 Contractility assay

$2.5x10^5$ cells were embedded in 80 µL of gel mixture, containing 10X DMEM (Sigma), 4.6mg/ml collagen (Corning) and 2.2mg/ml matrigel (Corning), in a 96 well plate, which has been pre-coated with 4% BSA. Once the gels were set, cells were incubated in DMEM-F12 supplemented with 10% FBS. Images of the gel contraction were acquired at the 0, 24 and 48 hour timepoints. Gel contraction was measured using imageJ and calculated as a percentage of contraction ((well diameter-gel diameter)/well diameter)*100.

2.12 siRNA transfection

Cells were seeded so that ~60% confluency was reached the following day. Cells were transfected with 20 nM siRNA (Dharmacon) along with Lipofectamine RNAiMAX (ThermoFisher Scientific) and optimem (ThermoFisher Scientific), according to the manufacturer's instructions. The siRNA used are listed in Table 2.3. 72 hours after transfection, cells were harvested for downstream analysis.

siRNA	Sequences
PTGS1 (L-003829-00-0005)	(1) GAUUACAGCUGUCAGAAAA (2) GCAGAUAACAAUAUAGUAC (3) GGUGAUGUGCAUUGUCUUA (4) GCUACAAACAUAUUCACUA
FAP (L-003792-00-0005)	(1) GAUGUGUAACGAAUUCUUU (2) CCACAAGUACUCGGGCAAA (3) GUGACAAGUUCAAGCUCAA (4) GAAAACUCCUCUGAUGUGG
HSPB6 (L-009224-02-005)	(1) CUACAAAGACAUCCGGGUA (2) CGGAGGAAAUUGCUGUCAA (3) AACAGAUAUCCUCGGCAA (4) CCUACCAGCACUACCCUAA
Non-targeting #1 (D-001810-01-05)	(1) UGGUUUACAUGUCGACUAA

Table 2.3 List of sequences used for siRNA transfection

2.13 Immunoblotting

Cell pellets were lysed using radioimmunoprecipitate assay (RIPA) buffer (Sigma) with protease inhibitor cocktail (Sigma). Protein lysate samples were quantified using BCA (Sigma). For low molecular weight protein detection (<25KDa), equal amounts of proteins diluted in Novex tricine SDS sample buffer and NuPAGE sample reducing agent (ThermoFisher Scientific), were loaded and separated using 10-20% Novex tricine gels (ThermoFisher Scientific). For other molecular weight protein detection, equal amounts of protein diluted in NuPAGE LDS sample buffer and NuPAGE sample reducing agent (ThermoFisher Scientific) were loaded and separated using NuPAGE 4-

12% Bis-Tris gels (ThermoFisher Scientific). Gels were transferred to PVDF membranes using the iBlot 2 system (Life Technologies). After blocking in intercept TBS LI-COR blocking buffer (LI-COR Biosciences), membranes were incubated at 4°C overnight in the appropriate primary antibody diluted 1:1000 in the blocking buffer previously mentioned, with the exception of GAPDH which was diluted at 1:10,000. The primary antibodies used are listed in Table 2.4. Membranes were washed in tris-buffered saline with 0.1% Tween (TBS-T) (3x 10 minutes) and incubated in secondary antibody (LI-COR Biosciences) diluted in the blocking buffer previously mentioned at 1:10,000 dilution. After washing the membranes again in the same manner as described above, the membranes were imaged using LI-COR Odyssey FC.

Antibody	Source
ABCG2/BCRP	ab207732, abcam
PTGS1/COX1	ab133319, abcam
CRYAB/HSPB5	ab76467, abcam
GAPDH	#5174, Cell Signal Technologies
HSPB6/HSP20	ab184161, abcam
PDLIM4/RIL	ab197026, abcam

Table 2.4 List of antibodies used for immunoblotting

2.14 Immunohistochemistry (IHC)

Fresh tissues were fixed with 10% neutral buffered formalin and embedded in paraffin wax, which were then cut into serial sections at 3 µm. Xylene was used to dewax the sections before removing this in industrial methylated spirits (IMS) and washing in tap water. The sections were microwaved in citrate pH 6 antigen retrieval buffer (TCS Biosciences) for 18 minutes. After 20 minutes cooling, the sections were processed using the i6000 autostainer whereby the endogenous peroxidase was blocked in 3% hydrogen peroxide and the

sections were blocked using protein block (Dako). Primary antibodies PTGS1/COX1 (ab133319, abcam) and HSPB6/HSP20 (ab184161, abcam) were used at 1:100 dilution whilst FAP (ab207178, abcam) was used at 1:250 dilution. The middle section was stained for FAP whilst the adjacent consecutive slices were stained for either PTGS1/COX1 or HSPB6/HSP20. All dilutions were with REAL antibody diluent (Dako). The primary antibody incubations were at RT for 1 hour. The sections were visualised using Envision FLEX high pH HRP rabbit/mouse kit (Agilent) and counterstained using Harris' haematoxylin. Sections were scanned and analysed using Halo (Indica Labs) whereby a trained pathologist identified areas in the FAP stained section which are the epithelium and the FAP positive and negative stroma. These regions were mapped onto the adjacent consecutive slices.

2.15 Drug screen and drug treatment

CM were prepared fresh after 48 hour incubations in the appropriate cell lines and the harvested media were used to seed cancer cells onto 384 well plates. Initial growth curve analysis over a 96 hour timeframe was performed using Incucyte S3 (Essen Bioscience) and CellTiter-Blue assays (Promega) as per manufacturer's instructions. Growth curves were plotted in Graphpad (version 8). Furthermore, DMSO tolerance was assessed with the cancer cells in the appropriate CM by adding 0%, 0.5%, 1% and 2% DMSO using the Echo acoustic liquid dispenser 550 (Labcyte) and measuring cell viability 72 hours after treatment using CellTiter-Blue assays (Promega).

For the initial drug screen, 24 hours after seeding the cells with the appropriate conditioned media, the cells were treated with a custom Apexbio library of 97 different drugs (Table 2.5 and Figure 2.1) using the Echo acoustic liquid

dispenser 550 (Labcyte) at concentrations: 0.06, 0.3, 0.6, 2, 5, 10 µM (1% (v/v) DMSO final) with no technical repeats. 72 hours after treatment, cell viability was measured using CellTiter-Blue assays (Promega). % inhibition were calculated on Dotmatics where the Z prime assessed assay performance.

Any drugs where the % inhibition exceeded 55 for both cancer and CAF CM were assessed again at lower concentrations of 50, 20, 10, 3, 1.5, 0.3 nM with no technical repeats. On the other hand, any drugs where the % inhibition was below 45% for both cancer and CAF CM were assessed again at higher concentrations of 0.6, 3, 6, 20, 50, 100 µM with no technical repeats.

At each concentration per cancer cell line, the drug hits were identified using Vortex (Dotmatics) if the difference between the cancer and CAF-derived conditioned media drug responses (delta) was more than 2 standard deviations away from the mean delta of all the drugs at that specific concentration in the cancer cell line.

The drug hits were then validated using an 11 point Gi50 curve (0.5% (v/v) DMSO final) using a new batch of the drugs in three independent experiments (each with three technical repeats) using the Echo acoustic liquid dispenser 550 (Labcyte) and cell viability was measured using CellTiter-Blue assays (Promega) 72 hours after treatment. Four parameter logistic IC50 curves were generated using Graphpad (version 8) where data is plotted as mean ± standard error of the mean (SEM). Furthermore, the effect of the drug hits on the (phospho)proteome was assessed by treating cells with 3xGi50 concentrations for 24 hours and the cells were harvested for

(phospho)proteome analysis by mass spectrometry or antibody-bead based assays (Luminex).

For the combination therapy of methotrexate with ABC transporter inhibitors, CM was prepared as described above and the cells in CAF or cancer CM were treated using the Echo acoustic liquid dispenser 550 (Labcyte) with the following conditions: 11 serial dilution of methotrexate (ranging from 0.12-1000 nM) or 1 µM KO-143 or 1 µM elacridar hydrochloride (Tocris Bioscience) or the combination of one of the ABC transporter inhibitors and 11 serial dilution of methotrexate. Cell viability was measured using CellTiter-Blue assays (Promega) 72 hours after treatment. This was undertaken in three independent experiments, each with three technical repeats. IC50 curves were plotted as described above.

Class	**Drugs**
AKT inhibitor	Capivasertib (AZD5363), Ipatasertib (GDC-0068, RG7440)
ALK inhibitor	Certinib (LDK378), alectinib (CH5424802), Crizotinib hydrochloride
Alkylating agent	Ifosfamide, Dacarbazine, Oxaliplatin, Temozolomide,
Androgen receptor inhibitor	Enzalutamide (MDV3100), Flutamide
Anti-folate	Methotrexate, Pemetrexed
Anti-inflammatory	Prednisolone
Antimicrotubule	Vincristine sulfate, Paclitaxel (Taxol), Docetaxel, Vinorelbine
Ataxia telangiectasia and RAD3 related (ATR) inhibitor	Ceralasertib (AZD6738), Elimusertib (BAY1895344)
Tyrosine-protein kinase receptor UFO (AXL) inhibitor	Bemcentinib (R428)
B-cell lymphoma 2 (BCL2) inhibitor	Venetoclax (ABT-199)
Bromodomain and extra-terminal domain (BET) inhibitor	Molibresib (I-BET-762)
BRAF inhibitor	Encorafenib, Dabrafenib (GSK2118436)

Bruton Tyrosine Kinase (BTK) inhibitor	Ibrutinib (PCI-32765)
CDK4/6 inhibitor	Ribociclib (LEE011), Palbociclib (PD0332991)
Checkpoint kinase 1 (CHK1) inhibitor	CCT245737 (SRA737), Prexasertib (LY2606368 HCl)
DNA methylation inhibitor	Decitabine (NSC127716, 5AZA-CdR), 5-Azacytidine
EGFR inhibitor	Gefitinib (ZD1839), Osimertinib
Endothelin receptor inhibitor	Zibotentan (ZD4054)
ERK inhibitor	SCH772984
Focal adhesion kinase (FAK) inhibitor	Defactinib
Fibroblast growth factor receptor (FGFR) inhibitor	AZD4547, Erdafitinib
Fms-like tyrosine kinase 3 (FLT3) inhibitor	Midostaurin (PKC412)
Human homolog of mouse double minute 2 (HDM2) inhibitor	HDM201
Human epidermal growth factor receptor 2 (HER2) inhibitor	Lapatinib, Neratinib (HKI-272)
Histone deacetylase (HDAC) inhibitor	Vorinostat (SAHA, MK0683), Panobinostat (LBH589)
Heat shock protein 90 (HSP90) inhibitor	17-AAG (KOS953), AUY922 (NVP-AUY922)
Isocitrate dehydrogenase 1 (IDH1) inhibitor	Ivosidenib (AG-120)
Isocitrate dehydrogenase 2 (IDH2) inhibitor	Enasidenib (AG-221)
Insulin growth factor receptor (IGFR) inhibitor	Linsitinib
Immunomodulatory	Lenalidomide (CC-5013), Thalidomide
Inhibitor of apoptosis proteins (IAPs)	LCL161
JAK inhibitor	Ruxolitinib (INCB018424), Fedratinib (TG101348, SAR302503)
$KRAS^{G12C}$ inhibitor	Sotorasib (AMG-510)
MEK inhibitor	Trametinib (GSK1120212), AZD6244 (Selumetinib)
Monopolar spindle (MPS) inhibitor	Empesertib (BAY1161909)
Mammalian target of Rapamycin (MTOR) inhibitor	Everolimus (RAD001), vistusertib (AZD2014)
Multi-target RTK inhibitor	Dasatinib (BMS-354825), Regorafenib, Nintedanib (BIBF 1120), Imatinib (STI571)

Poly (ADP-ribose) polymerase (PARP) inhibitor	Veliparib (ABT-888), Niraparib (MK-4827), Olaparib (AZD2281, Ku-0059436)
Platelet derived growth factor receptor (PDGFR) inhibitor	Crenolanib (CP-868596)
PI3K inhibitor	Pictilisib (GDC-0941), Alpelsib (BYL-719), GSK2636771
Proteosome inhibitor	Bortezomib (PS-341)
Purine analog	Mercaptopurine (6MP), Fludarabine
Pyrimidine analog	Fluorouracil (Adrucil), Gemcitabine
RAF/MEK inhibitor	RO5126766 (CH5126766)
Retinoid X receptor agonists	Bexarotene
Rho-associated protein kinase 1 (ROCK) inhibitor	Fasudil (HA-1077) HCl
Selective oestrogen receptor modulator (SERM)	Tamoxifen
Smoothened inhibitor	Vismodegib (GDC-0449), Erismodegib (NVP-DE225, LDE225)
Stimulator of interferon genes (STING) agonist	Vadimezan (DMXAA)
TGF-β receptor (TGFBR) inhibitor	Galunisertib (LY2157299)
Topoisomerase I inhibitor	Topotecan, SN-38 (7-Ethyl-10-hydroxycamptothecin)
Topoisomerase II inhibitor	Etoposide, Epirubicin HCl, Doxorubicin
Tropomyosin receptor kinase (TRK) inhibitor	Entrectinib, Larotrectinib (LOXO-101)
Vascular endothelial growth factor (VEGFR) inhibitor	Sunitinib, Cediranib (AZD217), Lenvatinib (E7080)
WEE1 inhibitor	Adavosertib (MK-1775)
WNT/β-catenin inhibitor	IWR-1-endo

Table 2.5 List of drugs screened for

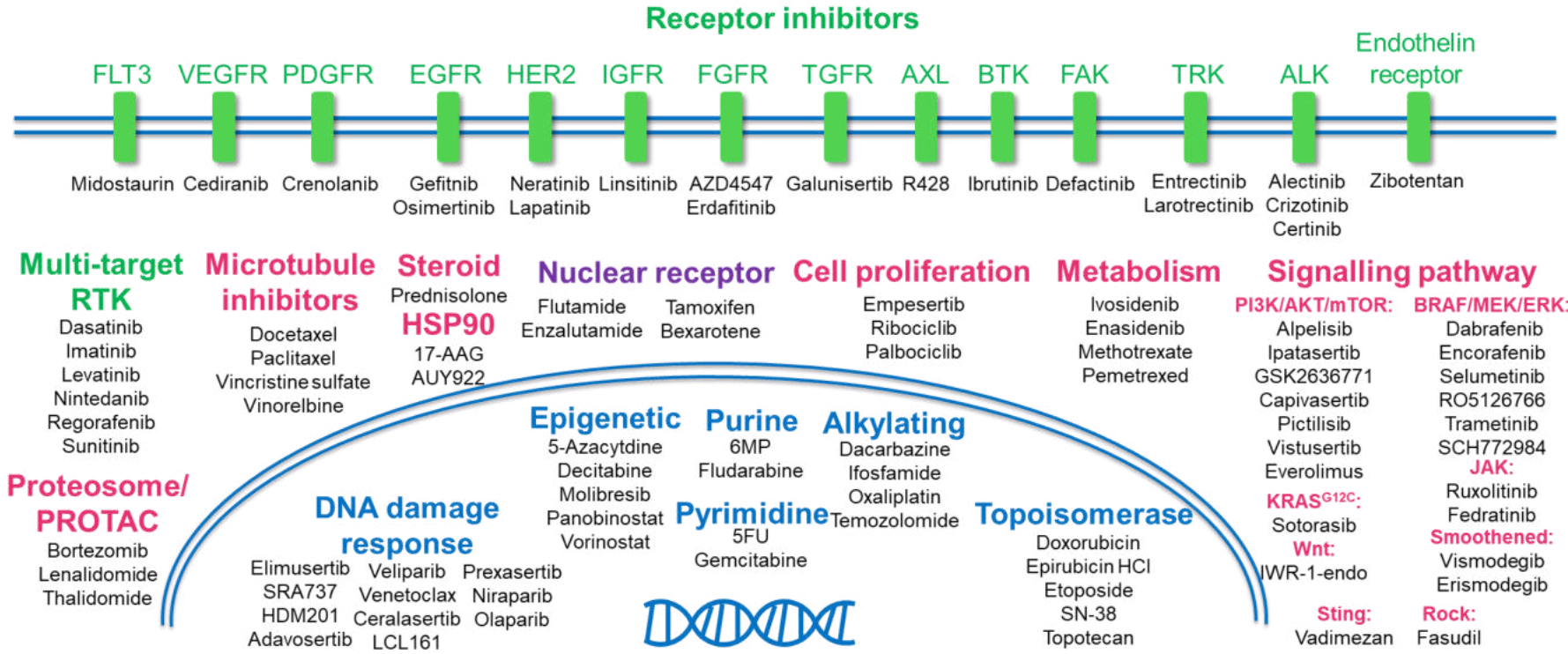


Figure 2.1 Drug screen panel A custom panel of 97 anti-cancer drugs illustrating the range of targets they cover.

2.16 Luminex quantification of phosphoproteins and total proteins

Cells incubated in cancer or CAF CM with 24 hour 3xGi50 drug treatment were prepared as described in the phosphoproteome and total proteome analysis section.

Cells were lysed using the MILLIPLEX MAP lysis buffer (Millipore) with protease inhibitor cocktail (Sigma) and PhosSTOP™ (sigma). Protein lysate samples were quantified using BCA (Sigma). 20 µg protein was loaded into each well of a 96 well plate and processed as per manufacturer's protocol. The following kits were used: MILLIPLEX MAP Akt/mTOR phosphoprotein kit, MILLIPLEX MAPK/SAPK signaling kit, MILLIPLEX MAP RTK phosphoprotein kit and 4 custom made kits (Millipore). All analytes are listed in Table 2.6. The phosphoprotein and protein levels were measured on the Luminex 200 system with xPONENT v3.1 software.

The Luminex median fluorescence intensity values were normalised to the GAPDH median fluorescence intensity value and $\log_2$ transformed. Paired t-test (Benjamini-Hochberg FDR <0.05) for the drug treated cells compared to DMSO treated cells. No p value correction for the paired t-test comparison between CAF and cancer CM (DMSO). All analysis was undertaken by RStudio (version 1.3.1093).

Protein	Phospho or Total	Phospho-site	Kit	Bead Region	Catalog Number
4EBP1	Phospho	Thr37/46	CUS1398	56	SPRCUS1398
AKT	Phospho	Ser473	AKT/mTOR	47	48-611MAG
ATF2	Phospho	Thr71	MAPK/SAPK	15	48-660MAG
ATF4	Total	NA	CUS1398	13	SPRCUS1398
BAX	Total	NA	CUS1409	72	SPRCUS1409
β-catenin	Phospho	Ser675	CUS1398	42	SPRCUS1398

BCLXL	Total	NA	CUS1409	14	SPRCUS1409
BIM	Total	NA	CUS1398	53	SPRCUS1398
CDK1	Phospho	Tyr15	CUS1398	29	SPRCUS1398
CHK1	Phospho	Ser345	CUS1399	55	SPRCUS1399
cJUN	Phospho	Ser73	MAPK/SAPK	73	48-660MAG
cKIT	Phospho	Pan Tyr	RTK Kit	19	HPRTKMAG-01K
Cleaved PARP1	Total	NA	CUS1398	15	SPRCUS1398
cMet/HGFR	Phospho	Pan Tyr	RTK Kit	29	HPRTKMAG-01K
cMYC	Total	NA	CUS1398	46	SPRCUS1398
CRAF	Phospho	Ser338	CUS1455	44	SPRCUS1455
EGFR	Phospho	Pan Tyr	RTK Kit	34	HPRTKMAG-01K
ERBB2/HER2	Phospho	Pan Tyr	RTK Kit	35	HPRTKMAG-01K
ERBB3/HER3	Phospho	Pan Tyr	RTK Kit	74	HPRTKMAG-01K
ERBB4/HER4	Phospho	Pan Tyr	RTK Kit	78	HPRTKMAG-01K
MAPK/ERK1/2	Phospho	Thr185/Tyr187	MAPK/SAPK	42	48-660MAG
FAK	Phospho	Tyr397	CUS1398	26	SPRCUS1398
FGFR1	Phospho	Pan Tyr	RTK Kit	47	HPRTKMAG-01K
FLT3	Phospho	Pan Tyr	RTK Kit	66	HPRTKMAG-01K
FOLR1	Total	NA	CUS1398	25	SPRCUS1398
γH2AX	Phospho	Ser139	CUS1398	39	SPRCUS1398
GAPDH	Total	NA	MAPK/SAPK	12	46-667MAG
GSK3α	Phospho	Ser21	AKT/mTOR	75	48-611MAG
GSK3β	Phospho	Ser9	AKT/mTOR	37	48-611MAG
Histone H3	Actyl	Lys27	CUS1399	30	SPRCUS1399
Histone H3	Phospho	Ser10	CUS1399	67	SPRCUS1399
HLA-B	Total	NA	CUS1398	12	SPRCUS1398
HSP27	Total	NA	CUS1398	20	SPRCUS1398
HSP27	Phospho	Ser78	MAPK/SAPK	27	48-660MAG
HSP70	Total	NA	CUS1398	57	SPRCUS1398
IGF1R	Phospho	Tyr1135/1136	AKT/mTOR	43	48-611MAG
IKBα	Phospho	Ser32	CUS1455	76	SPRCUS1455
IR	Phospho	Tyr1162/1163	AKT/mTOR	62	48-611MAG
IRS1	Phospho	Ser636	AKT/mTOR	45	48-611MAG
JNK	Phospho	Thr183/Tyr185	MAPK/SAPK	18	48-660MAG
MEK1	Phospho	Ser217/221	MAPK/SAPK	55	48-660MAG
MSK1	Phospho	Ser212	MAPK/SAPK	56	48-660MAG
MTOR	Phospho	Ser2448	AKT/mTOR	48	48-611MAG
NFκB	Phospho	Ser536	CUS1455	36	SPRCUS1455
nMYC	Total	NA	CUS1455	78	SPRCUS1455

p21	Total	NA	CUS1409	75	SPRCUS1409
p38	Phospho	Thr180/Tyr182	MAPK/SAPK	38	48-660MAG
p53	Phospho	Ser15	MAPK/SAPK	53	48-660MAG
p70S6K	Phospho	Thr412	AKT/mTOR	57	48-611MAG
p90RSK	Phospho	Ser380	CUS1398	37	SPRCUS1398
PDGFRβ	Phospho	Pan Tyr	RTK Kit	64	HPRTKMAG-01K
PDK1	Phospho	Ser241	CUS1398	48	SPRCUS1398
PDL1	Total	NA	CUS1398	62	SPRCUS1398
PRAS40	Phospho	Thr246	CUS1398	73	SPRCUS1398
PTEN	Phospho	Ser380	AKT/mTOR	72	48-611MAG
RB	Phospho	Ser780	CUS1409	33	SPRCUS1409
RPS6	Phospho	Ser235/Ser236	AKT/mTOR	77	48-611MAG
SMAD3	Phospho	Ser423/425	CUS1398	64	SPRCUS1398
SRC	Phospho	Tyr416	CUS1409	19	SPRCUS1409
STAT1	Phospho	Tyr701	MAPK/SAPK	61	48-660MAG
STAT3	Phospho	Tyr705	CUS1398	63	SPRCUS1398
STAT5	Phospho	Tyr694/699	CUS1455	65	SPRCUS1455
TSC2	Phospho	Ser939	AKT/mTOR	76	48-611MAG
VGFR1	Phospho	Pan Tyr	RTK Kit	14	HPRTKMAG-01K
VGFR2	Phospho	Pan Tyr	RTK Kit	21	HPRTKMAG-01K
VGFR3	Phospho	Pan Tyr	RTK Kit	33	HPRTKMAG-01K
PDGFRα	Phospho	Pan Tyr	RTK Kit	67	HPRTKMAG-01K

Table 2.6 List of Luminex analytes Lys=lysine, ser=serine, thr=threonine, tyr=tyrosine

2.17 R packages

Barplots, boxplots, correleogram, dot plots, PCA, venn diagrams and volcano plots were drawn in RStudio (version 1.3.1093) alongside the following packages: corrplot, ggplot2, ggrepel, ggtext, plotrix, VennDiagram.

Chapter 3 The basal state proteome of CAFs and *KRAS* mutant-cancer cells

3.1 Introduction

CAFs, a collective term for activated fibroblasts or myofibroblasts, are one of the most abundant stromal cells (102). PSCs are myofibroblast like cells in the pancreas and so activated PSCs have been used interchangeably with CAFs (105). The limitation of studies on CAFs is that there are no CAF-specific biomarkers due to the overlap of markers with other cell types and known CAF markers, such as ACTA2/α-SMA, can have variable expression between different CAFs (121-123). This is particularly important due to the inevitable heterogeneity of CAF cell line models and so reliance on defining CAFs with a single marker may cause seemingly conflicting results between studies when the results could be due to differential expression of another protein or set of proteins. Given the diverse and expanding array of CAF markers and CAF functions in cancer progression, profiling the CAF features in an unbiased manner is critical in characterising and contexualising the CAFs for mechanistic studies.

Mass spectrometry offers an unbiased analysis on the proteome profile with wide coverage. As my project investigates how the CAF cell line models influence drug response and the mutated KRAS signalling network, basal state proteome analysis using mass spectrometry will allow the CAF and tumour markers and phenotype profiles to be associated with the downstream observations.

There have been proteomic studies that compare CAFs with normal fibroblasts to define CAF related proteins and signatures, which led to the identification of cadherin 11 (CDH11) as a stroma marker and the definition of upregulated proteins associated with cell adhesion/migration in CAFs for instance (150,

151). However, the direct comparison of the basal state proteome between CAFs and *KRAS* mutant-cancer cells from different tissue types could provide a wider and better insight into CAF and tumour features that allow the two cell types to be distinguished.

3.2 Aims

Quantitative mass spectrometry was used for the basal state proteome analysis of a panel of CAF and *KRAS* mutant-cancer cells containing three CRC cell lines (H747, LIM2099, SW620), three NSCLC cell lines (H1792, H2030, H23), three PDAC cell lines (CAPAN1, DANG, MIAPACA2) and three CAF cell line models (colorectal CAF, lung CAF and PSC).

With the basal state proteome analysis, the aims were to:

- Understand the differences in the proteome profile between all the CAF and cancer cell lines
- Identify novel CAF biomarkers
- Probe the biological function and relevance to cancer of any potential novel CAF biomarkers

3.3 Results

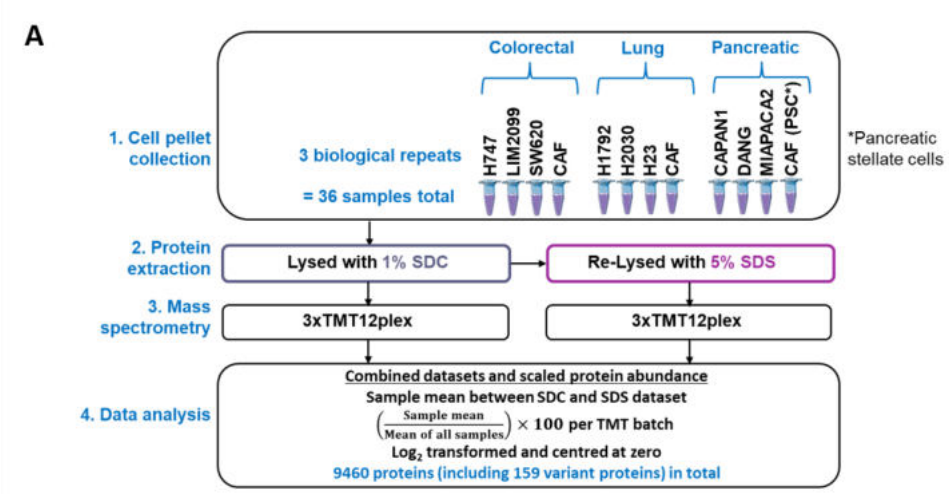
3.3.1 Obtaining the basal state proteome datasets

The basal state proteome of the 3 CAF cell line models, 3 *KRAS* mutant-CRC, 3 *KRAS* mutant-NSCLC and 3 *KRAS* mutant-PDAC cell lines were characterised in a multiplexed manner (12plex) in triplicates, each representing biological repeats. The 12 cell lines were initially lysed using a buffer containing 1% SDC in triplicates (36 samples) and then further extracted with the addition of 5% SDS in triplicates (36 samples), resulting in 72 samples in total (Figure 3.1A). Thus, the two different solubilisation conditions were technical replicates to increase proteome coverage, in particularly membrane proteins since SDS is a harsher detergent.

The majority of proteins identified between the two datasets overlapped, with 7584 proteins in common. 1115 proteins were unique to the 5% SDS proteome dataset whereas a lower number of proteins were unique to the 1% SDC proteome dataset (761 proteins) (Figure 3.1B). Moreover, there was a high correlation in the protein abundance between each of the biological and technical repeats (Figure 3.1C), indicating that the mass spectrometer reliably quantified proteins from the same samples in different lysis buffer.

Both the 1% SDC and 5% SDS proteome datasets were combined, rescaled according to TMT batch and $\log_2$ transformed and centred at zero (Figure 3.1A). The biological repeats per cell line clustered together in both datasets (Figure 3.1D-E) but it was noted that there was a sample swap between LIM2099 repeat 3 and SW620 repeat 3 in the 5% SDS proteome dataset (Figure 3.1E) so these samples were omitted from the combined proteome dataset. This resulted in quantification of 9460 proteins (including 159 variant

proteins of which 148 are derived from missense mutations) in the combined dataset, with over 9000 proteins quantified across all samples (Figure 3.1F). PCA revealed that the biological replicates in the combined dataset still clustered together. This demonstrates that there is not a large variation in the proteome profile between biological repeats (Figure 3.1G). Notably, the PCA also highlighted the separation between the clusters of cancer cell lines and CAF cell lines models, which suggests that the cancer cells and CAFs have distinct proteomes and that tissue origin is a smaller contributor to proteome variation than cell type. Heat shock protein β6 (HSPB6, also known as HSP20) had the highest positive loading for PC1 (0.072) followed by collagen type 6 alpha 2 (COL6A2) and collagen type 1 alpha1 (COL1A1) (0.070 and 0.068, respectively). Collagens are known to be CAF markers (122, 152) but HSPB6 has not been reported to be associated with CAFs.



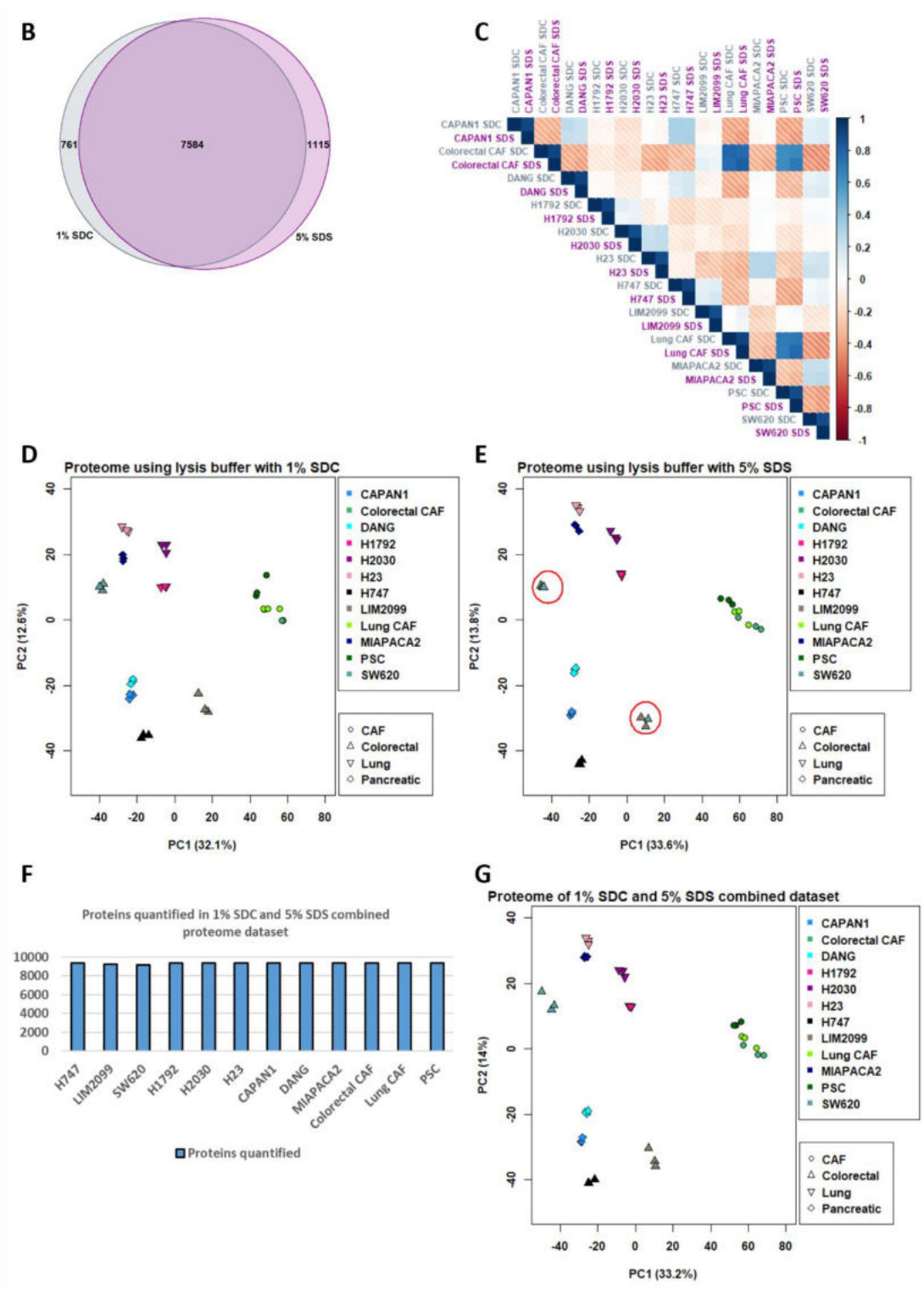


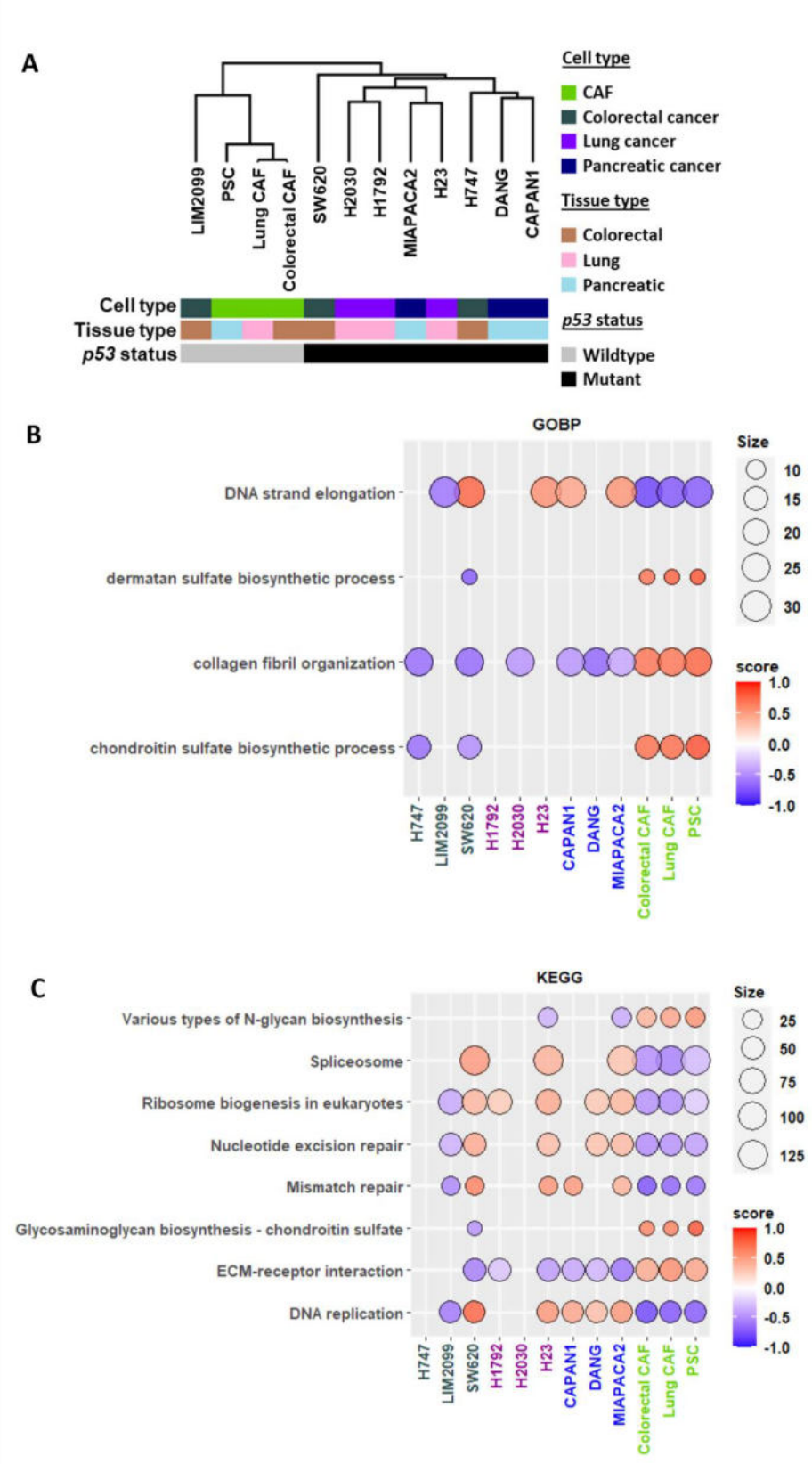
Figure 3.1 Basal state proteome dataset workflow (A) The basal state proteome was obtained from 12 cell lines (3 CAF cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines) in a 12plex with each run representing biological replicates. The cells were initially lysed in a buffer containing 1% sodium deoxycholate (SDC) and then re-lysed with 5% sodium docecyl sulfate (SDS). Both datasets were combined by averaging the scaled protein abundance between the two datasets and re-scaling according to tandem mass tag (TMT) batch and $\log_2$ transformed. **(B)** Venn diagram comparing the proteins quantified (excluding contaminants) in the basal state proteome using 1% SDC lysis buffer and 5% SDS lysis buffer. **(C)** Correleogram of the cell

lines using 1% SDC lysis buffer and 5% SDS lysis buffer whereby the mean scaled abundance was taken for each cell line. **(D)** Principal component analysis (PCA) of the basal state proteome obtained using 1% SDC lysis buffer. **(E)** PCA of the basal state proteome obtained using 5% SDS lysis buffer. The red circle highlights the sample swap between LIM2099 repeat 3 and SW620 repeat 3. **(F)** Barplot of the proteins quantified (excluding contaminants) in the combined basal state proteome of 12 cell lines. **(G)** PCA of the combined basal state proteome where proteome data from 1% SDC lysis buffer and 5% SDS lysis buffer were combined.

3.3.2 CAFs have differential global protein expression and functional profile compared to cancer cells

To assess the diversity in the global basal state proteome profile between the cell lines, ANOVA testing identified 7704 differentially expressed proteins between the 12 different cell lines (100 of which are variant proteins). Some of the 1756 proteins, which were not differentially expressed between the 12 different cell lines, were housekeeping proteins, such as histone and ribosomal protein subunits, so it was expected that these proteins would not be variable between the 12 cell lines.

The 7704 differentially expressed proteins were used for hierarchical clustering (Figure 3.2A) where the CAF cell line models clustered together, suggesting that they have a similar protein and functional profile. Similarly, all the *KRAS* mutant-cancer cell lines clustered separately from the CAF cell line models but interestingly, CRC LIM2099 had a more similar profile to the CAF cell line models compared to the other cancer cell lines. CRC LIM2099 and SW620 are MSS whilst CRC H747 is MSI, suggesting that the different clustering between the CRC cell lines is not attributed to microsatellite instability status. On the contrary, one distinguishing characteristic of LIM2099 that may partially explain the clustering is its *p53* wildtype status because all the other 8 cancer cell lines are *p53* mutant whereas all the CAFs are *p53* wildtype.


A
LIM2099
PSC
Lung CAF
Colorectal CAF
SW620
H2030
H1792
MIAPACA2
H23
H747
DANG
CAPAN1
Cell type
Tissue type
p53 status
Cell type
CAF
Colorectal cancer
Lung cancer
Pancreatic cancer
Tissue type
Colorectal
Lung
Pancreatic
p53 status
Wildtype
Mutant
B
GOBP
DNA strand elongation
dermatan sulfate biosynthetic process
collagen fibril organization
chondroitin sulfate biosynthetic process
Size
10
15
20
25
30
score
1.0
0.5
0.0
-0.5
-1.0
H747
LIM2099
SW620
H1792
H2030
H23
CAPAN1
DANG
MIAPACA2
Colorectal CAF
Lung CAF
PSC
C
KEGG
Various types of N-glycan biosynthesis
Spliceosome
Ribosome biogenesis in eukaryotes
Nucleotide excision repair
Mismatch repair
Glycosaminoglycan biosynthesis - chondroitin sulfate
ECM-receptor interaction
DNA replication
Size
25
50
75
100
125
score
1.0
0.5
0.0
-0.5
-1.0
H747
LIM2099
SW620
H1792
H2030
H23
CAPAN1
DANG
MIAPACA2
Colorectal CAF
Lung CAF
PSC

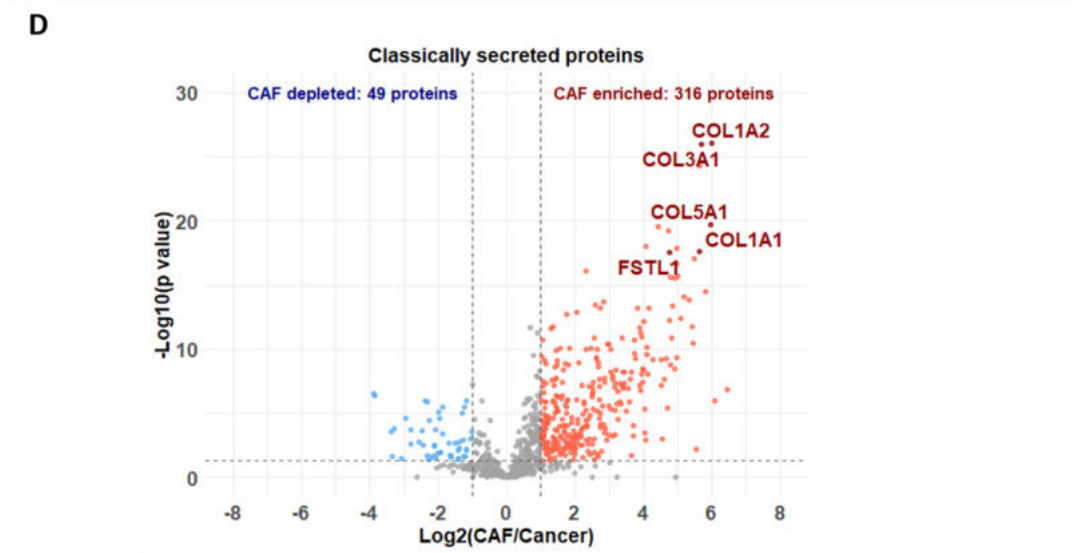


Figure 3.2 Differential protein expression and functional profile between the cell lines Hierarchical clustering of the cell lines (mean protein abundance) according to significant differential protein expression determined using ANOVA test between cell lines (Permutation based FDR= 0.05, 250 randomisations). **(B)** Bubble plot summarising the gene ontology biological process (GOBP) enrichment scores which had stark differences between CAF cell line models and cancer cell lines. **(C)** Bubble plot summarising the Kyoto Encyclopedia of Genes and Genomes (KEGG) enrichment scores which had stark differences between CAF cell line models and cancer cell lines. **(D)** Volcano plot of the classically secreted protein t-test analysis between the cell types (CAFs vs cancer) whereby significant differentially expressed proteins were defined by the cutoffs 2-fold (abs.$\log_2$>1) and p <0.05 (-$\log_{10}$(0.05) = 1.3). Green=CAF, grey= colorectal cancer, purple=lung cancer, blue=pancreatic cancer. PSC= pancreatic stellate cells

1D GOBP and KEGG pathway annotation enrichment also emphasised the differential protein and functional profile between the CAF and cancer cell lines (Figure 3.2B-C). Reflecting the known role of CAFs in ECM remodeling (102, 119, 120), annotations related to the ECM, including collagen and proteoglycans (chondroitin sulfate and dermatan sulfate), were enriched in the CAFs but were lowly abundant in some of the cancer cell lines. For instance, proteins associated with ‘chondroitin sulfate biosynthetic process’ annotation were lowly abundant in CRC H747 and SW620 and there was low expression of proteins with the ‘collagen fibril organization’ annotation in CRC H747 and SW620, NSCLC H2030 and all three of the PDAC cell lines. Higher collagen expression, such as collagen type I alpha 1/2 (COL1A1/2), in the CAFs

compared to all the cancer cell lines, corresponds to studies using these proteins as CAF markers (122, 152).

The functional role of CAFs in ECM remodeling was validated using contractility assays whereby CAFs or cancer cells were embedded in a gel containing collagen and matrigel (Figure 3.3). Within 24 hours, gel shrinkage was only exclusively observed in all three CAF cell line models, demonstrating contractile activity and collagen remodelling as features of active CAFs.

Furthermore, there was an enrichment in KEGG annotations related to N-glycosylation in the CAF cell line models whilst there was low expression of proteins related to this annotation in NSCLC H23 and PDAC MIAPACA2. This likely represents the molecular characteristic associated with CAF function related to protein secretion as classically secreted proteins undergo N-glycosylation (153). SignalP (141) predicted 844 classically secreted proteins from our basal state proteome analysis and of these 844 classically secreted proteins, 316 proteins had higher expression (>2-fold) in CAFs compared to all the cancer cell lines on average whereas only 49 proteins were cancer-enriched (Figure 3.2D). Potential CAF-enriched classically secreted proteins include collagens and follistatin like 1 (FSTL1) where these are known to be upregulated in CAFs (122, 150, 152). Further characterisation of the secreted proteins from media incubations of the 12 cell lines are detailed in chapter 4 to confirm the secreted proteins that are released into the extracellular environment and to predict mechanisms by which CAFs affect *KRAS* mutant-cancer signalling and drug response.

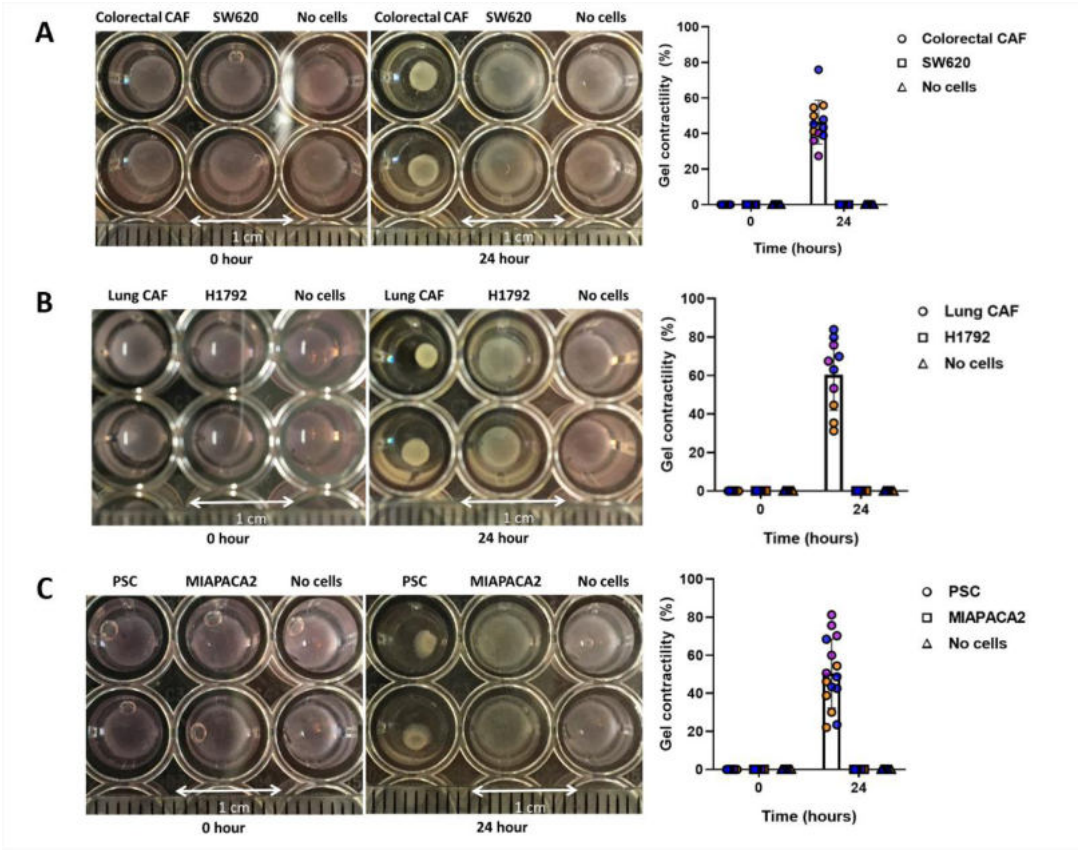


Figure 3.3 Colorectal, lung and pancreatic cancer-associated fibroblast (CAF) cell line models have contractile properties CAFs or cancer cells were embedded in a gel containing 4.6 mg/ml type I collagen and 2.2mg/ml matrigel and gels containing no cells were used as a control. Photographs of the gel were taken at the 0 and 24 hour timepoint after the gel was set and lifted from the well. Gel contractility was assessed as a percentage of the gel area compared to well area using ImageJ. These contractility assays were undertaken in **(A)** colorectal CAF and cancer cells, **(B),** lung CAF and cancer cells, and **(C)** pancreatic stellate cells (PSC) and pancreatic cancer cells. Two wells per cell condition are shown in the images, which are representative of three independent experiments where at least three technical repeats were undertaken. Purple= repeat 1, orange= repeat 2, blue = repeat 3. The data is plotted as mean ± standard error of the mean (SEM).

In contrast, proteins with annotations related to RNA and DNA processes were lowly abundant in the CAF cell line models but were enriched in some of the cancer cell lines. For the RNA process annotations, KEGG 'spliceosome' was enriched in CRC SW620, NSCLC H23 and PDAC MIAPACA2 where heterogenous nuclear ribonucleoprotein U (HNRPU), U1 small nuclear ribonucleoprotein C (SNRPC) and ATP-dependent RNA helicase DHX8 were particularly upregulated in SW620, H23 and MIAPACA2 compared to the other cell lines.

Downregulation of DNA process annotations in the CAFs include those related to replication, such as GOBP 'DNA strand elongation', and those related to DNA repair, such as KEGG 'mismatch repair' and 'nucleotide excision repair'. This coincides with the relatively lower expression in the CAFs of all the DNA replication complex components (minichromosome maintenance (MCM), CDC45, GINS subunit and polymerase α/δ) (154) and mismatch repair proteins (MutS homologs (MSH2/3/6), MutL homolog (MLH1) and exonuclease 1) (155). For nucleotide excision repair, xeroderma pigmentosum A (XPA) had lower expression in the CAFs compared to the cancer cell lines but there was no distinct difference in expression of the other excision repair proteins, such as XPC (156). Therefore, the downregulation of nucleotide excision repair may be skewed by the decreased expression of DNA replication proteins which are also annotated as part of the nucleotide excision repair in KEGG. Overall, the low expression of DNA replication proteins in the CAFs compared to the cancer cell lines corresponds to the slower doubling time of CAFs as the cancer cell lines on my panel are highly proliferative in comparison.

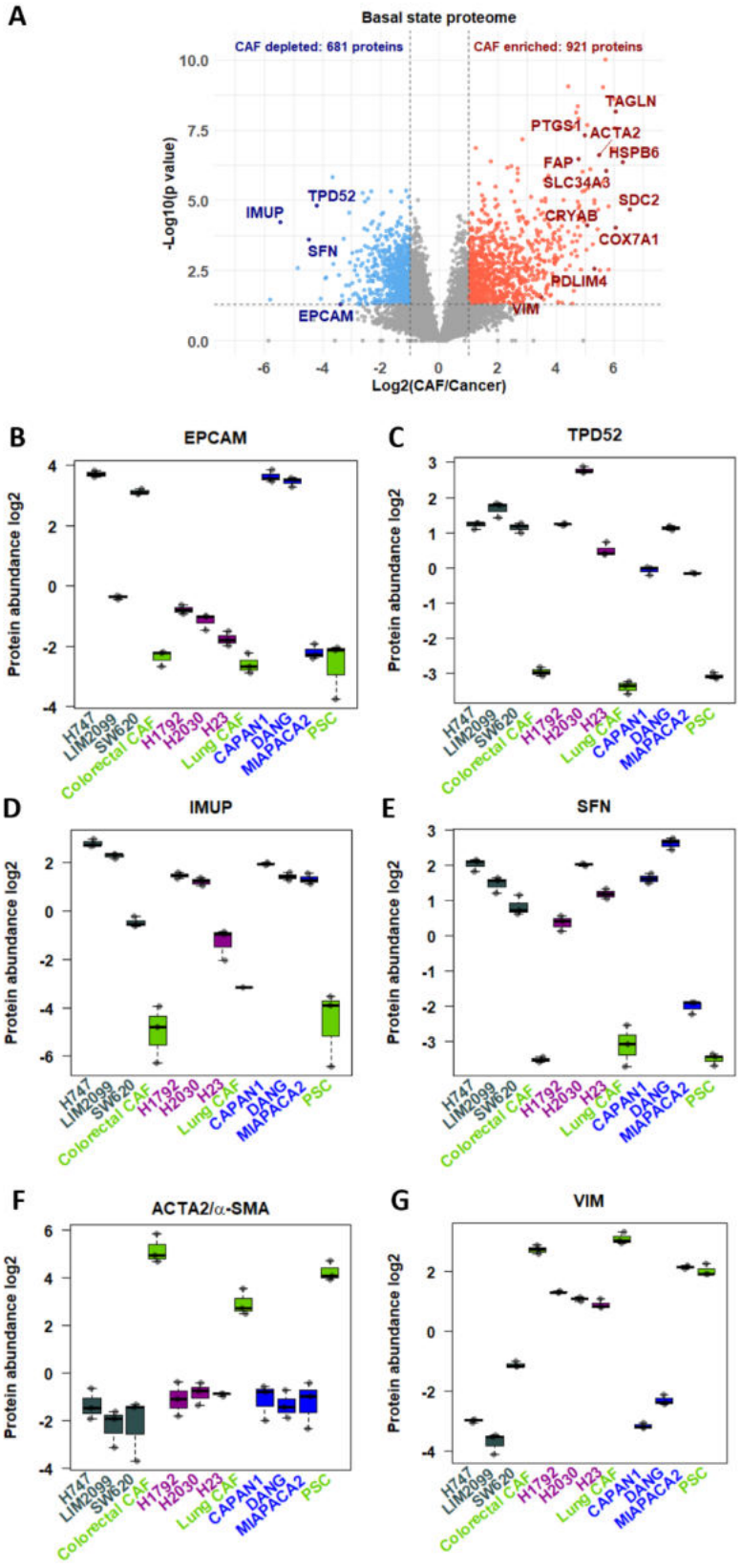
Furthermore, these DNA process annotations and associated proteins were also downregulated in CRC LIM2099, explaining its clustering profile proximal to CAFs (Figure 3.2A). This was reaffirmed when forcing the clustering of the cell lines by *p53* mutational status and there was the enrichment of DNA processes in the cluster of 1949 proteins that were lowly expressed in the *p53* wildtype cell lines compared to the *p53* mutant cell lines. For instance, 'DNA strand elongation' was enriched (score= 4.67, Benjamini-Hochberg FDR= $3.6x10^{-18}$). In addition, the majority of these lowly expressed 1949 proteins in

p53 wildtype cell lines are targets of critical cell cycle transcription factors, such as MYC and MAX (527 and 616 proteins, respectively. Adjusted p values= $7x10^{-174}$ and $2x10^{-167}$, respectively), which are defined by the consensus datasets of Encyclopedia of DNA elements (ENCODE) and Chromatin immunoprecipitation Enrichment Analysis (ChEA) in EnrichR (139, 140). Only 22 proteins of the 1949 proteins are direct p53 targets defined by EnrichR.

3.3.3 Screening for CAF biomarkers

Since the definition of CAFs is limited to known markers reported in the literature, the protein expression in the basal state proteome was compared between the cell lines grouped by cell type, CAFs or cancer cells (Figure 3.4A). 1602 proteins were found to have 2-fold ($abs.log_2>1$) significant differential expression between the CAF and cancer cells on average. Of these 1602 proteins, 921 proteins had higher expression in CAFs compared to cancer cells on average whilst 681 proteins had higher expression in cancer cells compared to CAFs on average (Appendix Table 1-2).

As expected, EPCAM was downregulated in the CAFs compared to the cancer cells because EPCAM is an epithelial cell marker and so acts as a conventional negative CAF marker (Figure 3.4B). 6 proteins had at least 16-fold ($abs.log_2>4$) significant higher expression in cancer cells compared to CAFs on average but of these 6 proteins, 3 proteins had higher expression in all cancer cell lines compared to the CAF cell line model within a tissue type (Figure 3.4C-E). These 3 cancer-enriched proteins were tumour protein D52 (TPD52), immortalisation up-regulated protein (IMUP) and 14-3-3 protein σ (SFN) and they have not been reported as negative CAF markers but overexpression of these proteins in cancer has been reported (157-160).


A
Basal state proteome
CAF depleted: 681 proteins
CAF enriched: 921 proteins
-Log10(p value)
Log2(CAF/Cancer)
TAGLN
PTGS1
ACTA2
HSPB6
FAP
SLC34A3
SDC2
CRYAB
COX7A1
RDLIM4
VIM
TPD52
IMUP
SFN
EPCAM
B
EPCAM
C
TPD52
D
IMUP
E
SFN
F
ACTA2/α-SMA
G
VIM
Protein abundance log2
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H2030
H23
Lung CAF
CAPAN1
DANG
MIAPACA2
PSC

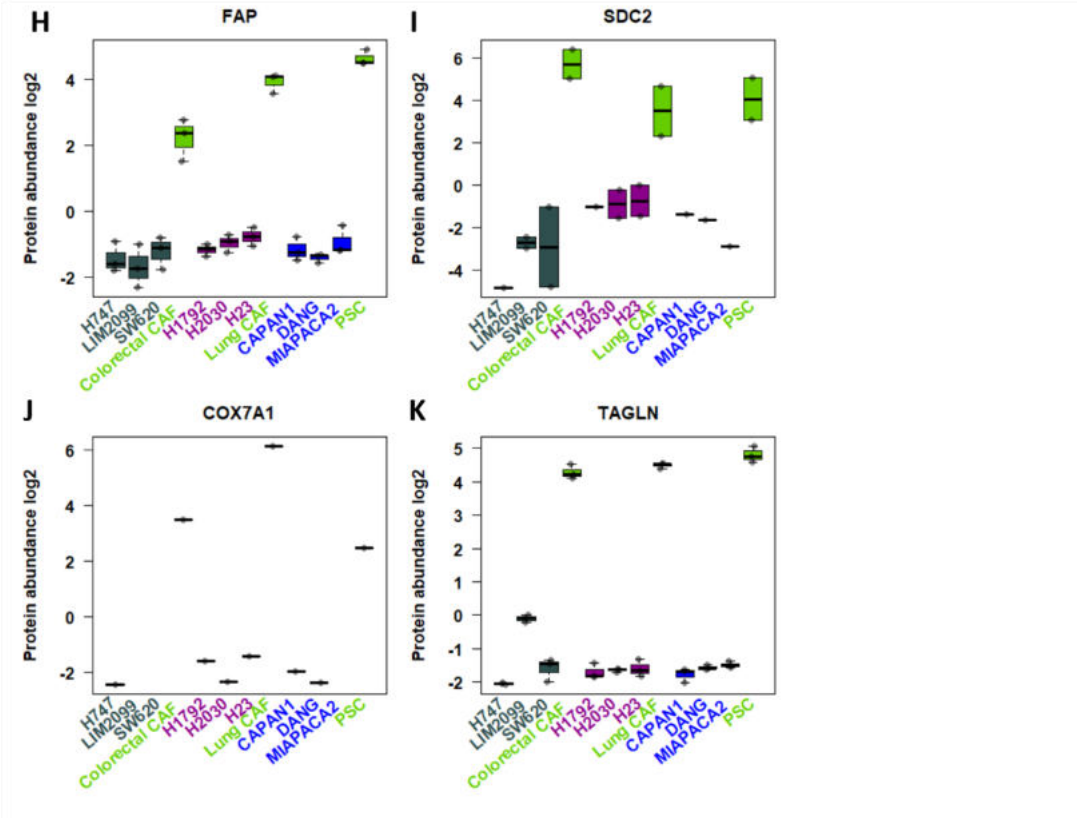


Figure 3.4 Differential protein expression between the cancer-associated fibroblast (CAF) cell line models and *KRAS* mutant-cancer cell lines (A) Volcano plot of the t-test analysis between the cell types (CAFs vs cancer) whereby significant differentially expressed proteins were defined by the cutoffs 2-fold (abs.$\log_2$>1) and p <0.05 (-$\log_{10}$(0.05) = 1.3). Boxplot of the basal state protein expression of **(B)** epithelial cell adhesion molecule (EPCAM), **(C)** Tumour protein D52 (TPD52), **(D)** immortalisation up-regulated protein (IMUP), **(E)** 14-3-3 protein σ (SFN), **(F)** α-smooth muscle actin (ACTA2/α-SMA), **(G)** vimentin (VIM), **(H)** fibroblast activating protein (FAP), **(I)** syndecan 2 (SDC2), **(J)** cytochrome C oxidase subunit 7A1 (COX7A1) and **(K)** transgelin (TAGLN) using our proteome dataset of 12 cell lines (3 CAF cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines). PSC = pancreatic stellate cells. Green=CAF, grey= colorectal cancer, purple=lung cancer, blue=pancreatic cancer

Conversely, known positive CAF markers were enriched in the CAF cell line models compared to the cancer cell lines, such as ACTA2, vimentin and FAP (Figure 3.4E-H). 85 proteins had at least 16-fold significant higher expression in CAFs compared to cancer cells on average. Of these 85 proteins, 76 proteins had higher expression in the CAF cell line models compared to all cancer cell lines within a tissue type. Some have been reported to be upregulated in CAFs or as positive CAF markers, such as syndecan 2 (SDC2)

(161), cytochrome C oxidase subunit 7A1 (COX7A1) (162) and transgelin (TAGLN) (122, 152) (Figure 3.4I-K).

However, there were CAF-enriched proteins that have not been reported to be associated with CAFs and those that have been quantified in all three biological repeats include: heat shock protein β-6 (HSPB6), solute carrier family 34 member 3 (SLC34A3), PDZ and LIM domain protein 4 (PDLIM4, also known as RIL), α-crystallin B (CRYAB, also known as HSPB5) and cyclooxygenase 1 (PTGS1, also known as COX1) (Figure 3.5A-E).

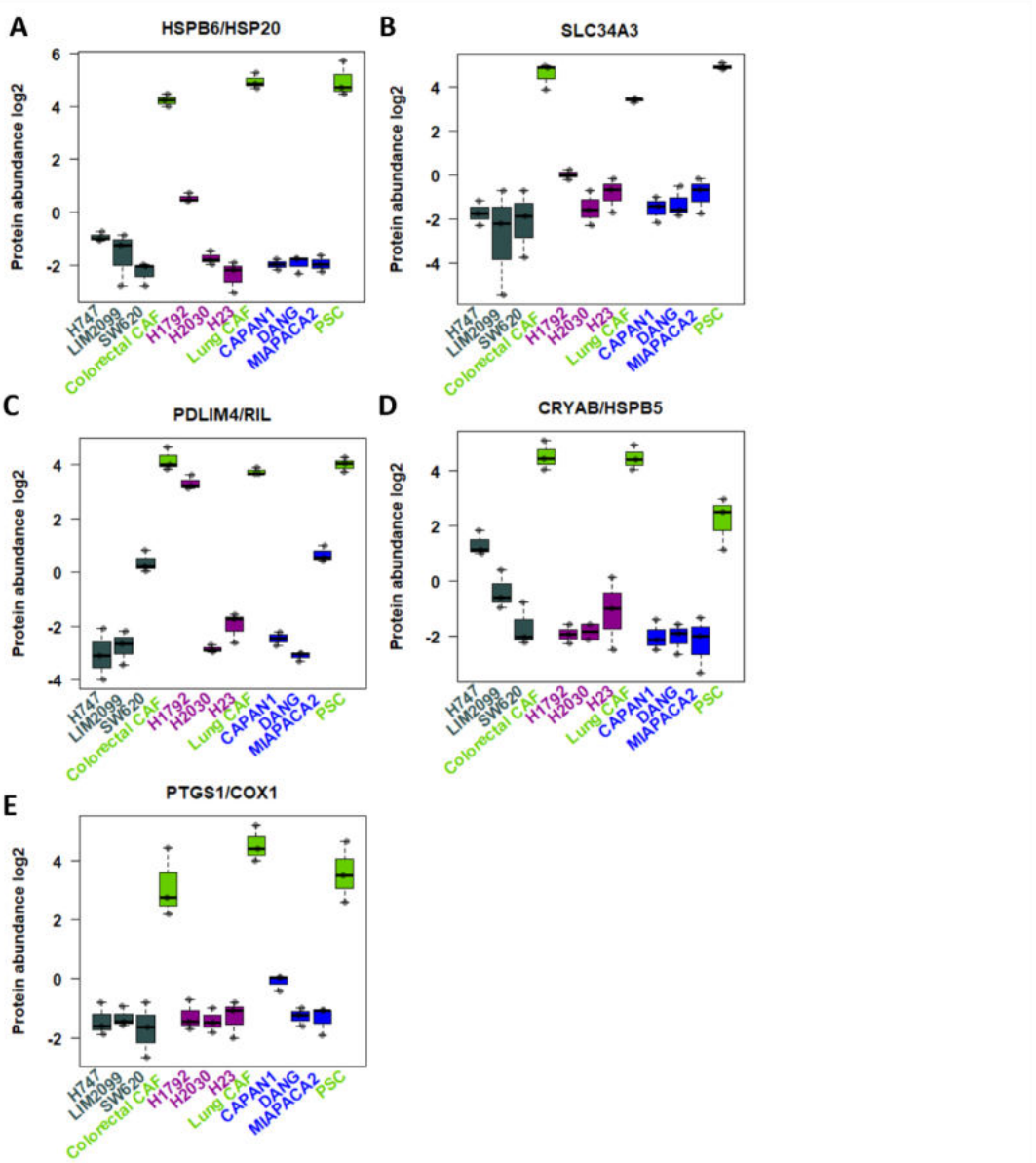
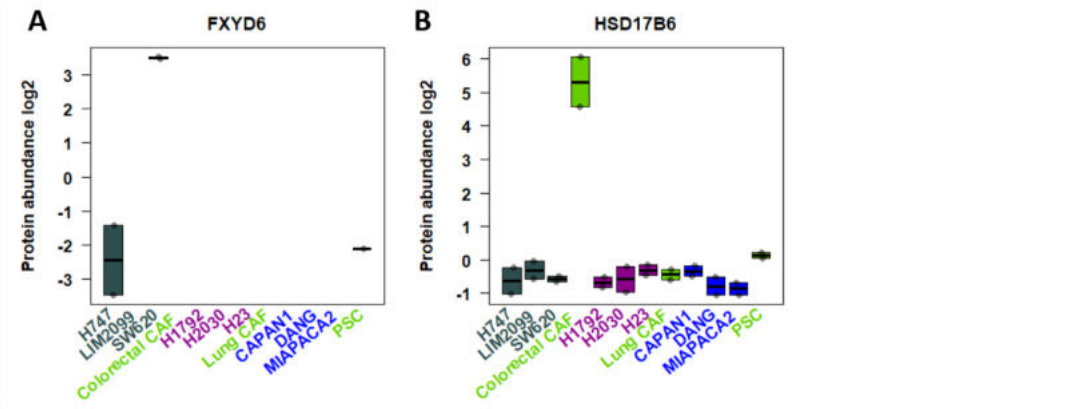


Figure 3.5 Cancer-associated fibroblast (CAF)-enriched proteins not known to be associated with CAFs Boxplot of the basal state protein expression of **(A)** heat shock protein β-6 (HSPB6/HSP20), **(B)** solute carrier family 34 member 3 (SLC34A3), **(C)** PDZ and LIM domain protein 4 (PDLIM4), **(D)** α-crystallin B (CRYAB/HSPB5) and **(E)** cyclooxygenase 1 (PTGS1/COX1) using our proteome dataset of 12 cell lines (3 CAF cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines). PSC = pancreatic stellate cells. Green=CAF, grey= colorectal cancer, purple=lung cancer, blue=pancreatic cancer

It is worth noting that when comparing the protein identifications between CAFs and cancer cell lines that there was no protein identification that was exclusive to only CAFs. On the other hand, when assessing the CAF unique identifications by tissue type, only FXYD domain containing ion transport regulator 6 (FXYD6) was expressed in PSC but not in the PDAC cell lines or the other CAFs (Figure 3.6A). However, FXYD6 was expressed in CRC H747 and SW620. Furthermore, when comparing CAF-enriched proteins specific to tissue types, there were colorectal CAF-enriched proteins that were expressed in relatively higher levels (abs.log_2>4) compared to all the cancer cell lines and other CAFs. These potential colorectal CAF-enriched proteins include: hydroxysteroid 17-beta dehydrogenase 6 (HSD17B6), myosin heavy chain 11 (MYH11), collagen type XIV alpha 1 (COL14A1), transmembrane protein 176A/B (TMEM176A/B), olfactory receptor family 5 subfamily M membrane 8 (OR5M8) and SLC27A6 (Figure 3.6B-H).



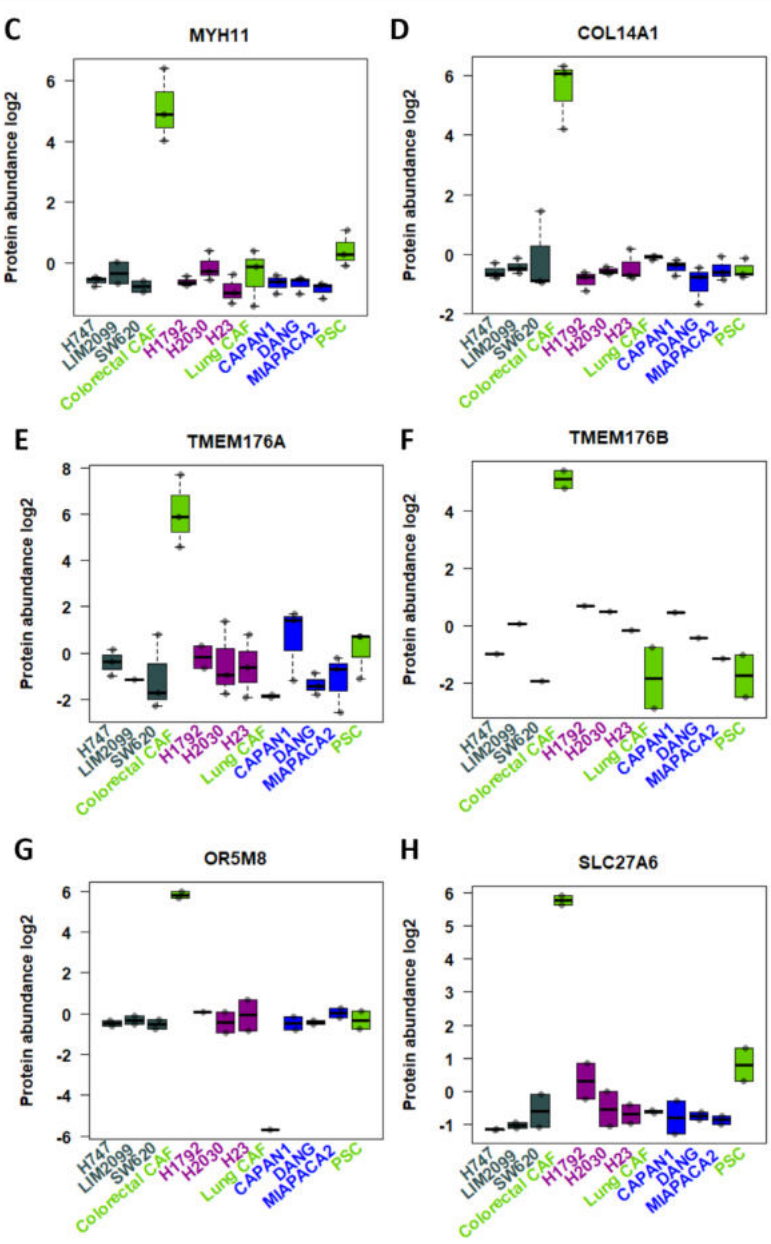


Figure 3.6 Potential tissue specific cancer-associated fibroblast (CAF)-enriched proteins Boxplot of the basal state protein expression of **(A)** FXYD domain containing ion transport regulator 6 (FXYD6) **(B)** hydroxysteroid 17-beta dehydrogenase 6 (HSD17B6), **(C)** myosin heavy chain 11 (MYH11), **(D)** collagen type XIV alpha 1 chain (COL14A1), **(E)** transmembrane protein 176A (TMEM176A), **(F)** TMEM176B, **(G)** olfactory receptor family 5 subfamily M membrane 8 (OR5M8) and **(H)** SLC27A6 using our proteome dataset of 12 cell lines (3 CAF cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines). PSC = pancreatic stellate cells. Green=CAF, grey= colorectal cancer, purple=lung cancer, blue=pancreatic cancer

In contrast, CAF-enriched proteins specific to lung and pancreatic did not have a huge difference in expression (abs.log_2>4) compared to all the other CAF and cancer cell lines. Our analysis of any potential tissue specific CAF markers is difficult since one CAF cell model was used to represent each tissue type and so a wider panel is required for further investigation into tissue specific CAF markers.

3.3.4 Immunoblot validation of potential CAF markers

Potential positive CAF biomarkers, CRYAB, PDLIM4, SLC34A3, HSPB6 and PTGS1, were further assessed using immunoblotting to determine whether any of these proteins can allow the stroma to be distinguished from cancer cells. CRYAB expression in only the CAF cell line models corresponded to our findings using mass spectrometry (Figure 3.7A). However, PDLIM4 expression did not validate as CAF-enriched since it was found to be expressed in some of the cancer cell lines, SW620, H1792 and MIAPACA2 (Figure 3.7B), which is in line with the relatively high PDLIM4 expression in SW620, H1792 and MIAPACA2 compared to the other cancer cell lines observed in the basal state proteome analysis (Figure 3.5C). SLC34A3 expression in the CAF cell line models could not be reliably confirmed using commercially available antibodies.

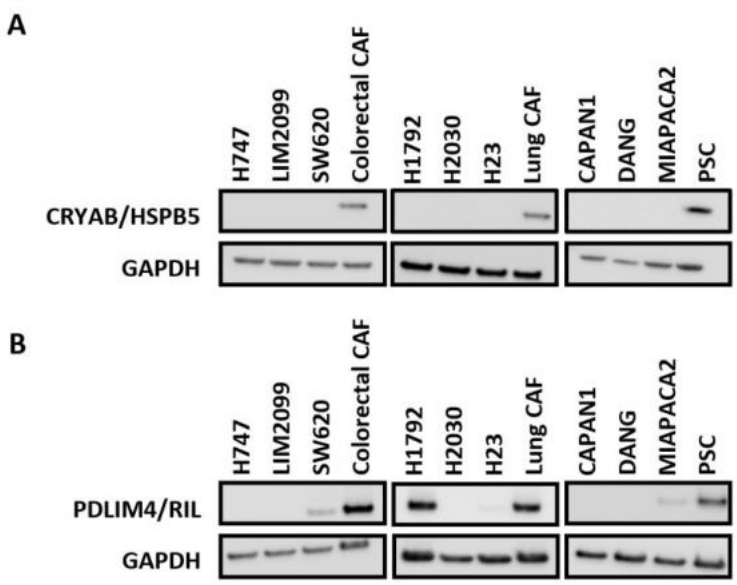


Figure 3.7 α-crystallin B (CRYAB/HSPB5) and PDZ and LIM domain protein 4 (PDLIM4/RIL) expression Immunoblots probing for expression of **(A)** CRYAB and **(B)** PDLIM4. Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) was used as a loading control. Images are representative of three independent experiments.

HSPB6 had the highest difference in expression between the CAF cell line models and cancer cell lines on average and its expression in only the CAF cell line models was validated using immunoblotting (Figure 3.8A-C). HSPB6 expression was further investigated using a panel of normal cell lines: MRC5 (normal lung fibroblasts), HUVEC (umbilical vein endothelial cell), Ker-CT (skin keratinocyte), RPE1 (retinal pigment epithelial cell) and RWPE1 (normal prostate epithelial cell). From this, HSPB6 expression was not observed in the normal cell lines apart from MRC5, suggesting overexpression in fibroblasts which potentially allows them to be distinguished from cancer cells.

PTGS1 expression in the CAF cell line models but not in cancer cell lines was also validated using immunoblotting (Figure 3.8D-F). PTGS1 expression was also further investigated in normal cell lines and it was found to be expressed in MRC5 but also weakly in HUVEC. Therefore, like HSPB6, PTGS1 may allow for distinct identification between stromal and cancer cells.

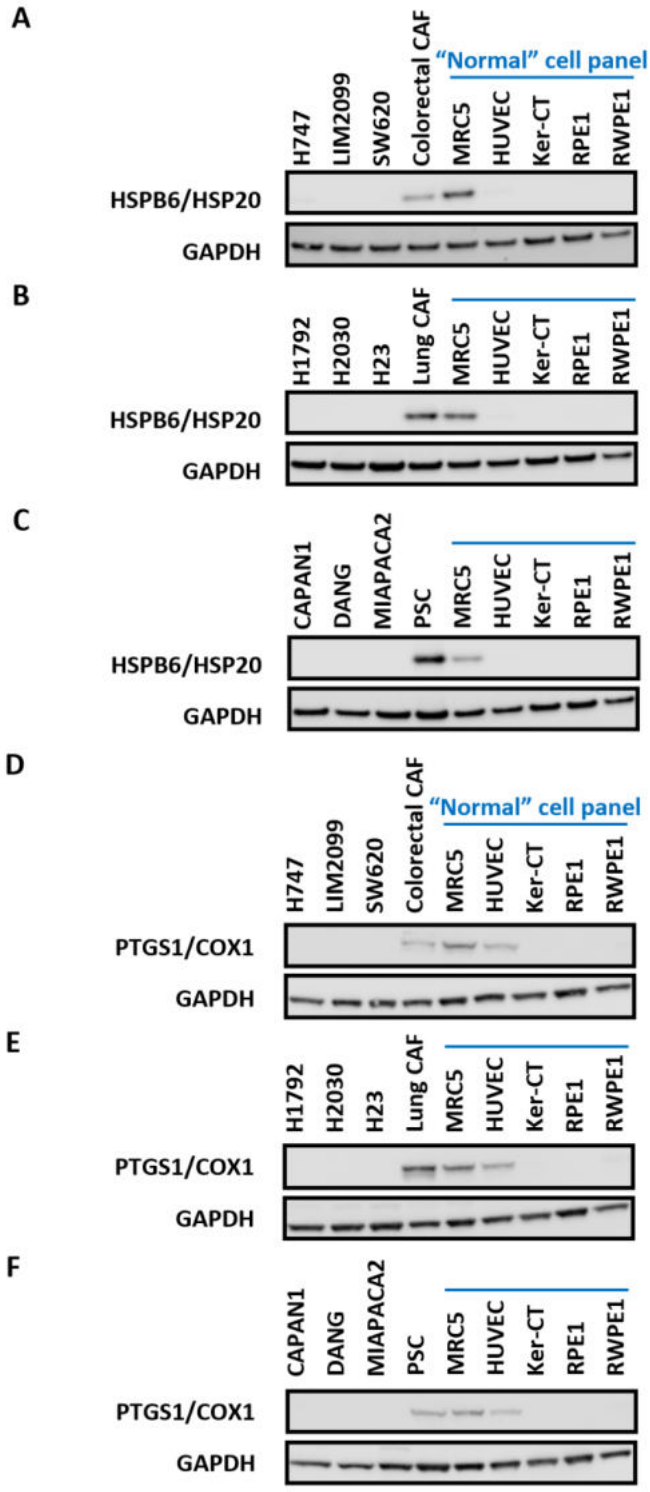
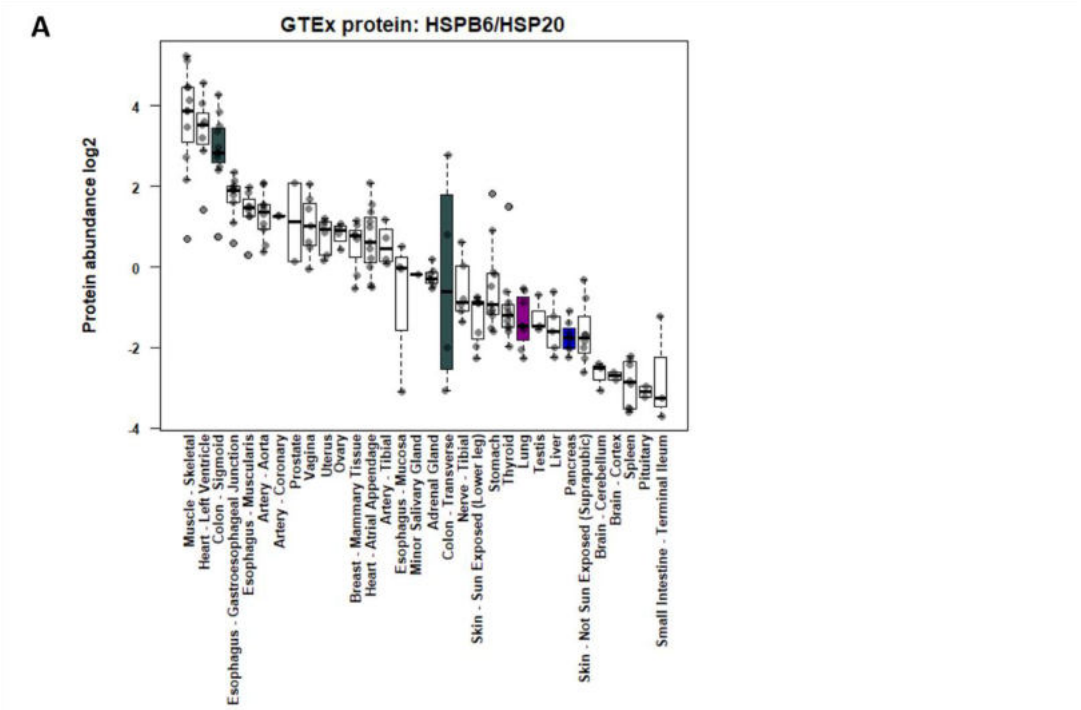
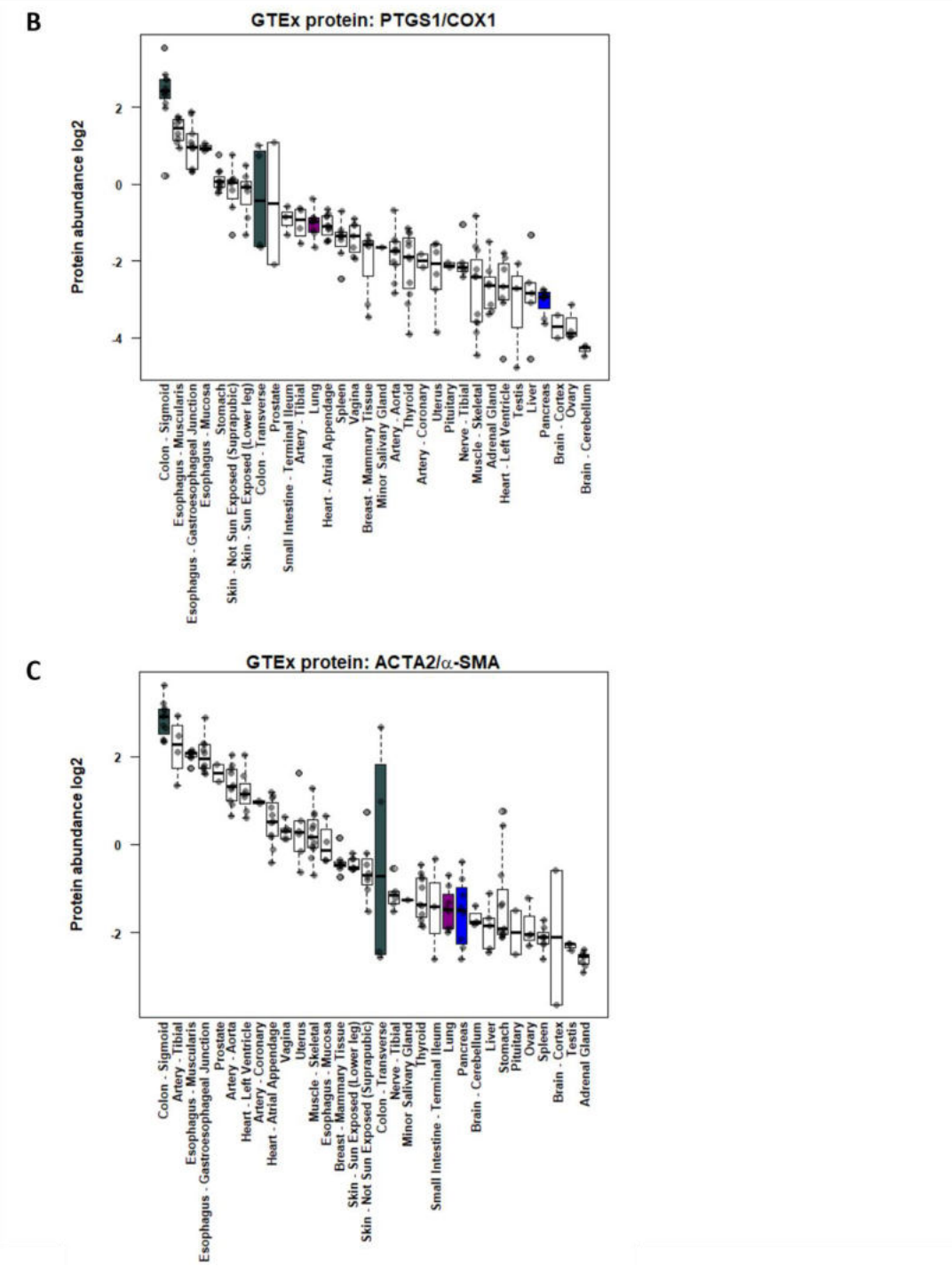


Figure 3.8 Heat shock protein β-6 (HSPB6/HSP20) and cyclooxygenase 1 (PTGS1/COX1) protein expression in cancer and normal cell lines Immunoblots probing for expression of HSPB6 in **(A)** colorectal cancer cell lines, **(B)** lung cancer cell lines and **(C)** pancreatic cancer cell lines and expression of PTGS1 in **(D)** colorectal cancer cell lines, **(E)** lung cancer cell lines and **(F)** pancreatic cancer cell lines. Immunoblots were ran alongside normal cell lines MRC5 (normal lung fibroblasts), HUVEC (umbilical vein endothelial cell), Ker-CT (skin keratinocyte), RPE1 (retinal pigment epithelial cell) and RWPE1 (normal prostate epithelial cell). Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) was used as a loading control. Images are representative of three independent experiments.

3.3.5 Assessing HSPB6 and PTGS1 protein expression using public datasets

The distribution of HSPB6 and PTGS1 protein expression in normal tissues was further investigated using publicly available proteomic data in GTEx where 201 samples from 32 different normal tissues were analysed (149). From this, it was found that HSPB6 expression is enhanced in skeletal muscle and cardiac tissue (Figure 3.9A). On the other hand, PTGS1 expression was highest in colorectal tissue (Figure 3.9B). This is similar to known CAF markers whereby ACTA2 was also highly expressed in cardiac and colorectal tissue (Figure 3.9C) and FAP expression is upregulated in the coronary and tibial arteries (Figure 3.9D). This corresponds to the cardiac tissue being known to be particularly abundant of fibroblasts and vascular smooth muscle cells (163, 164).




B
GTEx protein: PTGS1/COX1
Protein abundance log2
2
0
-2
-4
Colon - Sigmoid
Esophagus - Muscularis
Esophagus - Gastroesophageal Junction
Esophagus - Mucosa
Stomach
Skin - Not Sun Exposed (Suprapubic)
Skin - Sun Exposed (Lower leg)
Colon - Transverse
Prostate
Small Intestine - Terminal Ileum
Artery - Tibial
Lung
Heart - Atrial Appendage
Spleen
Vagina
Breast - Mammary Tissue
Minor Salivary Gland
Artery - Aorta
Thyroid
Artery - Coronary
Uterus
Pituitary
Nerve - Tibial
Muscle - Skeletal
Adrenal Gland
Heart - Left Ventricle
Testis
Liver
Pancreas
Brain - Cortex
Ovary
Brain - Cerebellum
C
GTEx protein: ACTA2/α-SMA
Protein abundance log2
2
0
-2
Colon - Sigmoid
Artery - Tibial
Esophagus - Muscularis
Esophagus - Gastroesophageal Junction
Prostate
Artery - Aorta
Heart - Left Ventricle
Artery - Coronary
Heart - Atrial Appendage
Vagina
Uterus
Muscle - Skeletal
Esophagus - Mucosa
Breast - Mammary Tissue
Skin - Sun Exposed (Lower leg)
Skin - Not Sun Exposed (Suprapubic)
Colon - Transverse
Nerve - Tibial
Minor Salivary Gland
Thyroid
Small Intestine - Terminal Ileum
Lung
Pancreas
Brain - Cerebellum
Liver
Stomach
Pituitary
Ovary
Spleen
Brain - Cortex
Testis
Adrenal Gland

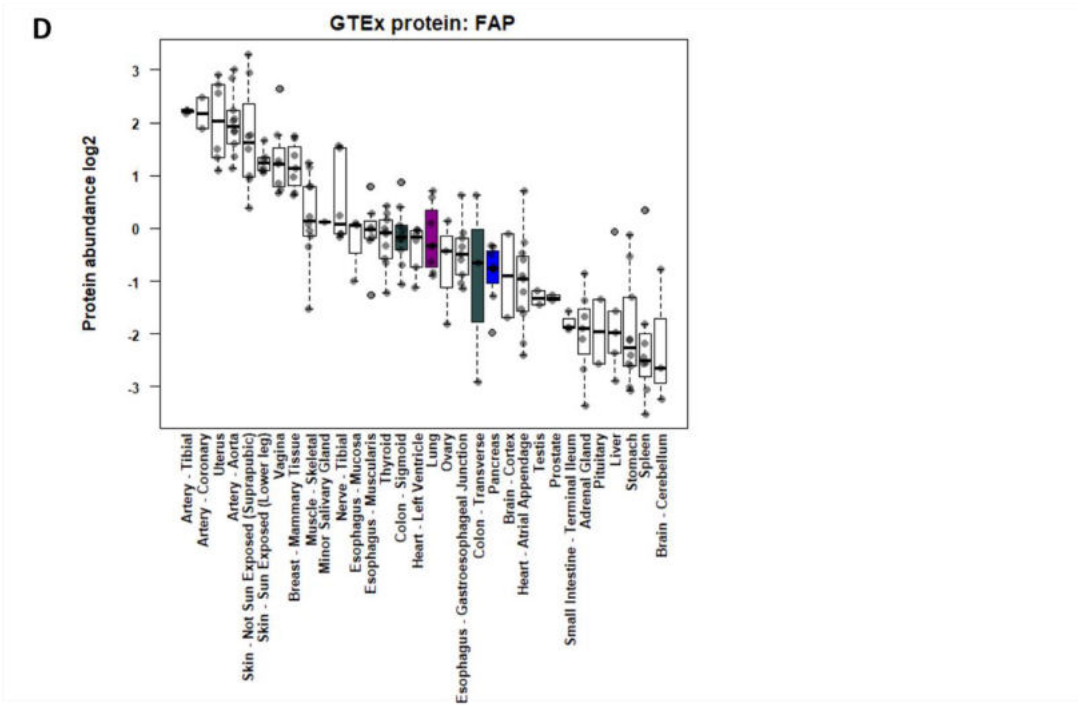


Figure 3.9 Heat shock protein β-6 (HSPB6/HSP20), cyclooxygenase 1 (PTGS1/COX1), α-smooth muscle actin (ACTA2/α-SMA) and fibroblast activating protein (FAP) expression in 32 normal tissues Boxplot of **(A)** HSPB6, **(B)** PTGS1, **(C)** ACTA2 and **(D)** FAP protein expression in 32 normal tissues from the Genotype-Tissue Expression (GTEx) proteomic dataset (149). Grey= colorectal tissue, purple= lung tissue, blue = pancreatic tissue.

3.3.6 HSPB6 and PTGS1 expression and cancer patient survival

CPTAC was used to probe the association of HSPB6 and PTGS1 protein expression with cancer patient survival by comparing the upper quartile expression with the lower quartile expression. NSCLC and CRC patients from the CPTAC dataset could not be assessed due to a lack of deaths in these patients within the dataset compilation timeframe. HSPB6 protein expression in PDAC tumour from the CPTAC dataset was associated with better survival (Figure 3.10A) whilst for PTGS1, its protein expression was not associated with survival outcomes in PDAC patients (Figure 3.10B).

Nonetheless, it is difficult to draw any definite conclusions from the CPTAC given that the stroma exists within and around the tumour. Therefore, differentiating the tumour from the stroma may be complex without co-localisation with conventional CAF markers or single cell analysis.

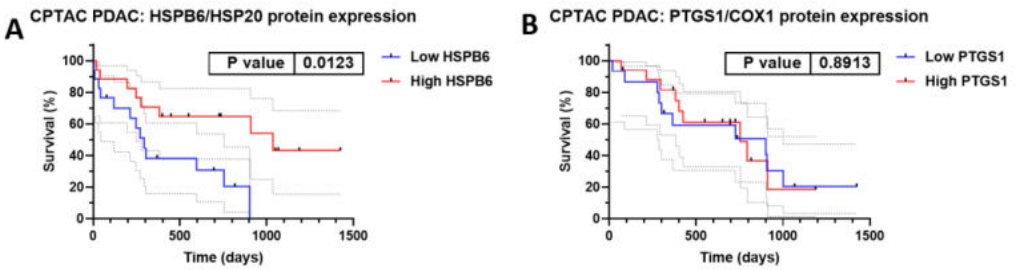


Figure 3.10 Heat shock protein β-6 (HSPB6/HSP20) and cyclooxygenase 1 (PTGS1/COX1) in cancer patients from the Clinical Proteomic Tumour Analysis Consortium (CPTAC) dataset Survival curve using Log-rank/Mantel-Cox test of the pancreatic ductal adenocarcinoma (PDAC) patients (N=67) from the CPTAC dataset (7) in relation to **(A)** HSPB6 protein expression or **(B)** PTGS1 protein expression. Low and high HSPB6 or PTGS1 expression in the tumour samples are defined as lower and upper quartiles of the PDAC patient population.

3.3.7 Assessing stromal and tumour HSPB6 and PTGS1 protein expression in patient samples

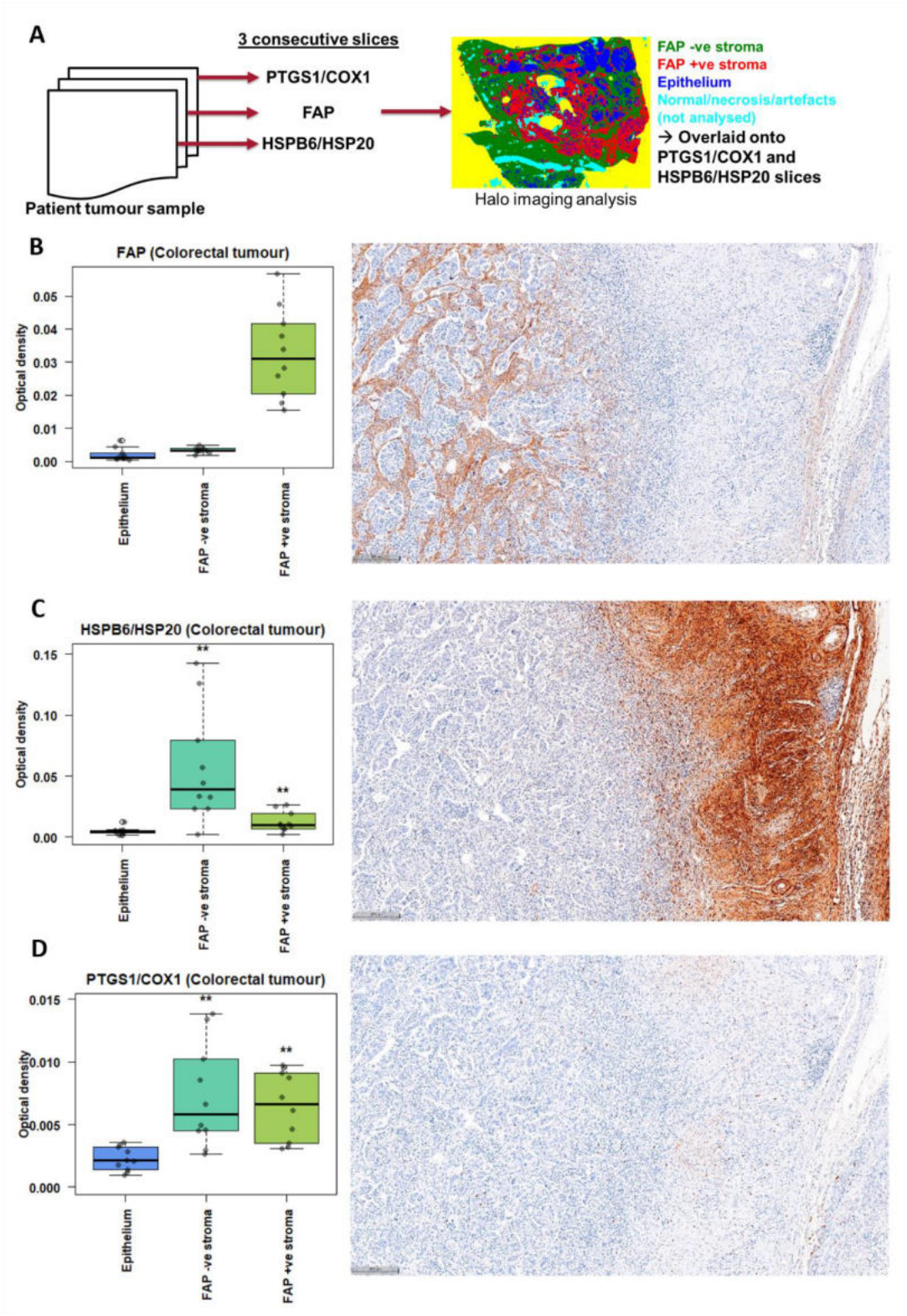
IHC was undertaken in 10 colorectal, 10 lung and 10 pancreatic tumour samples to confirm whether HSPB6 and PTGS1 are localised specifically to CAFs and are not present in cancer cells. In the IHC analysis, the overlap of FAP expression (positive CAF marker) with HSPB6 or PTGS1 expression were determined in the tumour and desmoplastic areas of three consecutive tissue slices. The tissue stained for FAP was the middle section and the epithelium, FAP positive stroma and FAP negative stroma areas were defined where a qualified pathologist trained the artificial intelligence in the Halo image analysis software to recognise these areas using samples of our IHC images. The epithelium, FAP positive stroma and FAP negative stroma areas defined on the FAP stained tissue were mapped onto the adjacent slices corresponding to HSPB6 and PTGS1 staining (Figure 3.11A). Any surrounding normal tissue was not analysed.

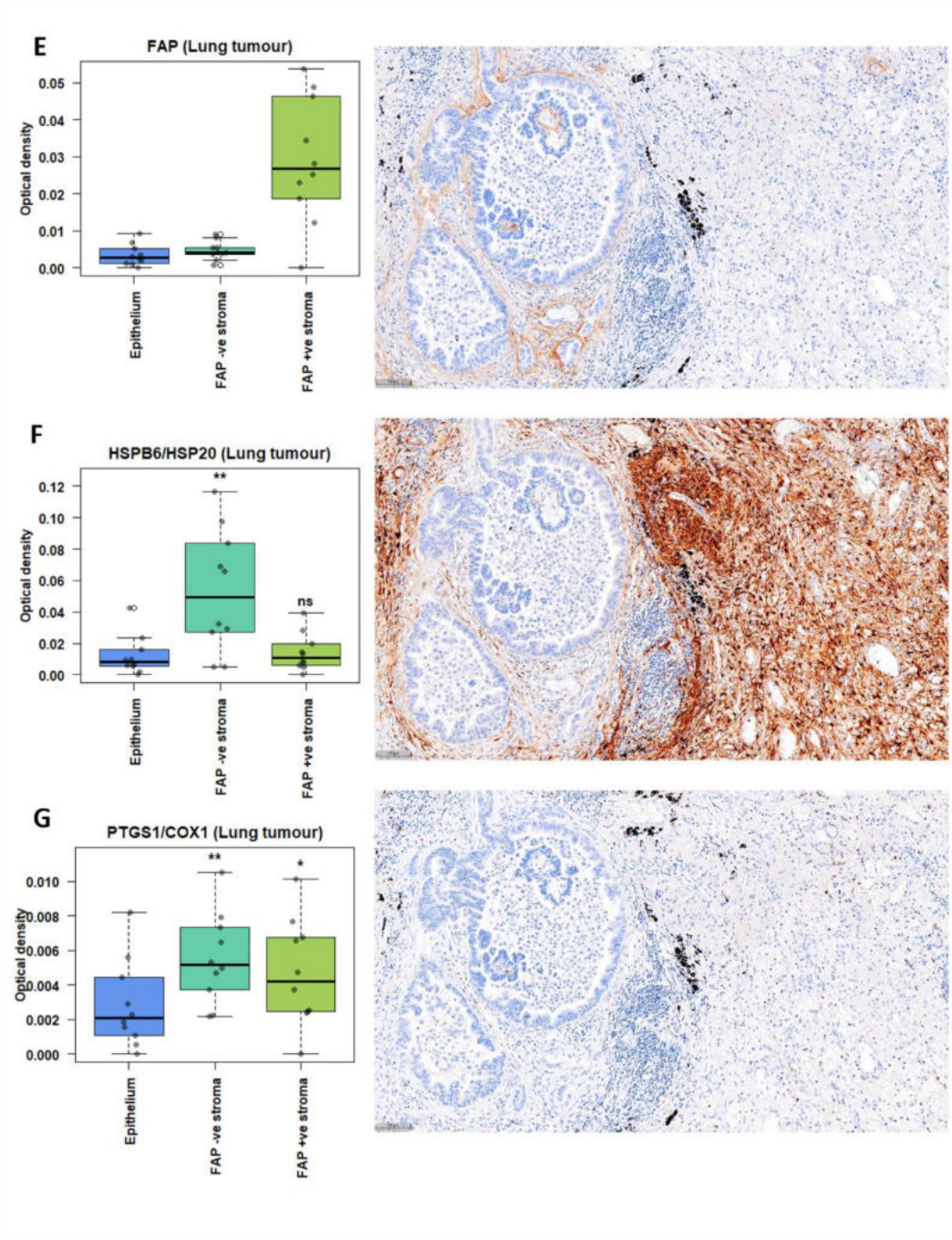
FAP staining was lower in the epithelium compared to the stroma, confirming its use as a positive stromal marker (Figure 3.11B, E, H). However, one

pancreatic tumour sample had higher FAP staining in the epithelium and one lung tumour sample had low FAP staining in both the epithelium and stroma.

Both HSPB6 and PTGS1 staining were also low in the epithelium compared to the stroma (Figure 3.11C-D, F-G, I-J) for all three tumour types, which is in line with our basal state proteome analysis where low HSP20 and PTGS1 expression was observed in the cancer cell lines.

Despite overall higher expression in the stroma compared to the epithelium, both HSPB6 and PTGS1 staining was higher in the FAP negative stroma. HSPB6 staining was only significantly higher in the FAP positive stroma compared to the epithelium in colorectal tumours (Figure 3.11C) whilst PTGS1 staining was only significantly higher in the FAP positive stroma compared to the epithelium in colorectal and lung tumours (Figure 3.11D, G). Although this seems counterintuitive and higher HSPB6 and PTGS1 staining in the FAP positive stroma was expected, our approach with the IHC analysis has some limitations. Firstly, FAP is also expressed by other cell types, such as bone marrow stromal cells and skeletal muscle cells (165). Also, our IHC analysis does not consider single cell analysis or cell subtypes, especially fibroblast subtypes. For instance, low FAP expression can occur in CAFs that are not of the myofibroblastic subtype, such as inflammatory and antigen presenting CAFs (122). Another limitation could be the number of tumour samples studied (10 CRC, 10 PDAC and 10 NSCLC), which is only a small proportion of the general cancer population. Despite some of the limitations to our IHC analysis, it is evident that HSPB6 and PTGS1 are lowly expressed in cancer cells, validating our basal state proteome analysis and illustrating potential as positive stromal markers.


A
3 consecutive slices
PTGS1/COX1
FAP
HSPB6/HSP20
Patient tumour sample
Halo imaging analysis
FAP -ve stroma
FAP +ve stroma
Epithelium
Normal/necrosis/artefacts
(not analysed)
→ Overlaid onto
PTGS1/COX1 and
HSPB6/HSP20 slices
B
FAP (Colorectal tumour)
Optical density
0.05
0.04
0.03
0.02
0.01
0.00
Epithelium
FAP -ve stroma
FAP +ve stroma
C
HSPB6/HSP20 (Colorectal tumour)
0.15
0.10
0.05
0.00
**
**
D
PTGS1/COX1 (Colorectal tumour)
0.015
0.010
0.005
0.000


E
FAP (Lung tumour)
Optical density
0.05
0.04
0.03
0.02
0.01
0.00
Epithelium
FAP -ve stroma
FAP +ve stroma
F
HSPB6/HSP20 (Lung tumour)
**
ns
0.12
0.10
0.08
0.06
0.04
0.02
0.00
G
PTGS1/COX1 (Lung tumour)
**
*
0.010
0.008
0.006
0.004
0.002
0.000

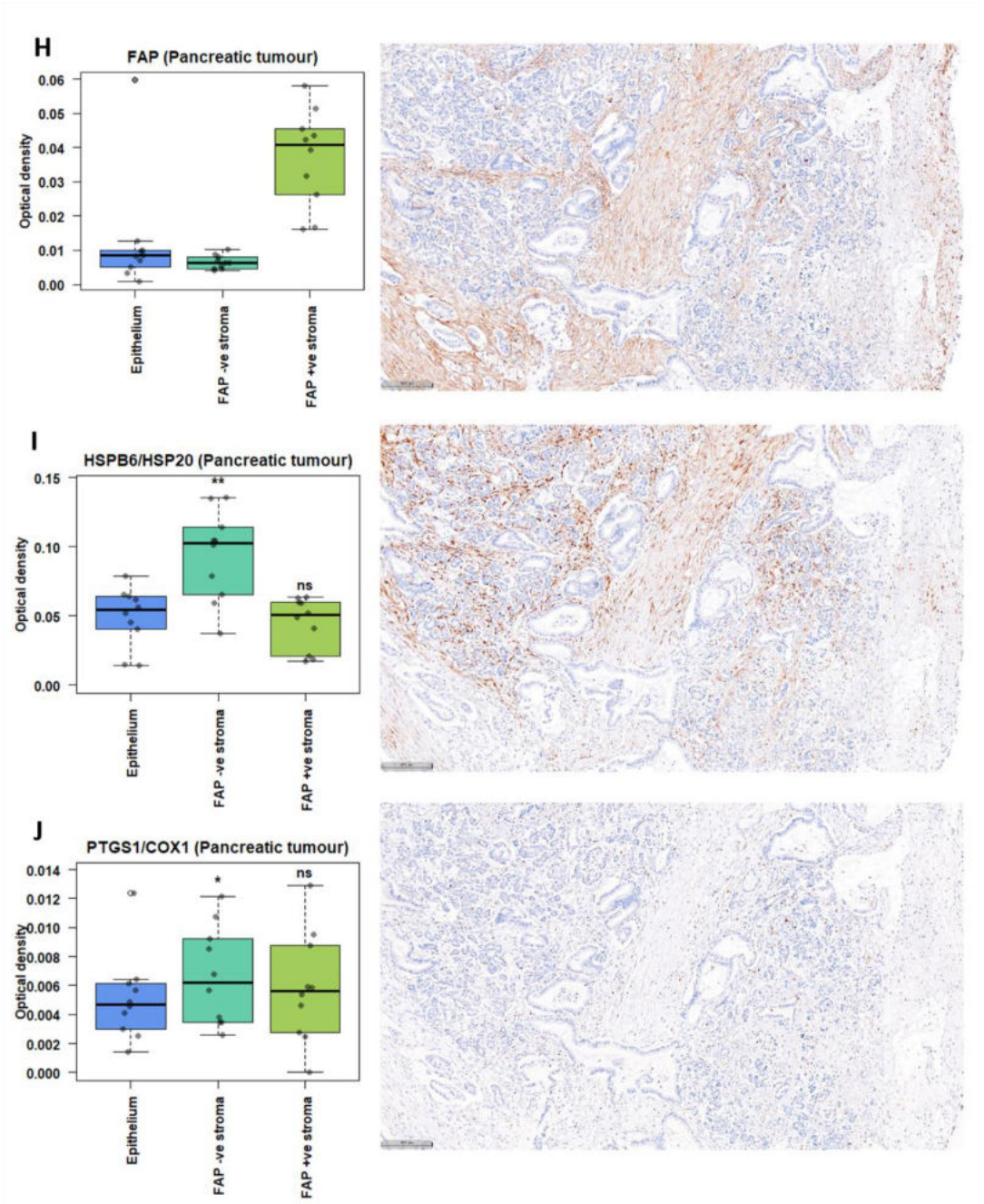


Figure 3.11 Heat shock protein β-6 (HSPB6/HSP20) and cyclooxygenase 1 (PTGS1/COX1) expression in tumour and fibroblast activating protein (FAP) positive/negative stroma regions of cancer patients (A) 10 colorectal, 10 lung and 10 pancreatic tumour samples were used for immunohistochemistry. For each patient tumour sample, three consecutive slices were generated to stain for PTGS1, FAP and HSPB6. FAP was the middle section and Halo image analysis software defined the epithelium, FAP positive/negative stroma areas. These areas were overlaid onto the adjacent slices with PTGS1 or HSPB6 staining. Boxplots of FAP, HSPB6 and PTGS1 staining optical density for **(B-D)** colorectal tumour samples, **(E-G)** lung tumour samples and **(H-J)** pancreatic tumour samples. Images are representative of the corresponding tumour sample staining.

3.3.8 HSPB6 and PTGS1 are not critical in CAF contractility activity

Given that HSPB6 and PTGS1 were CAF-enriched, the proteins were silenced to determine whether it is critical in the contractile activity of lung CAFs. HSPB6 and PTGS1 silencing was successfully achieved through siRNA (Figure 3.12A-B). HSPB6 knockdown did not significantly inhibit the contractility of lung CAFs since slight inhibition was only observed in two repeats and a minimal difference was observed in a single repeat (Figure 3.12C). Similarly, PTGS1 knockdown did not inhibit lung CAF contractility (Figure 3.12D). This suggests that HSPB6 and PTGS1 do not have a crucial role in regulating the CAF contractility activity despite its high expression.

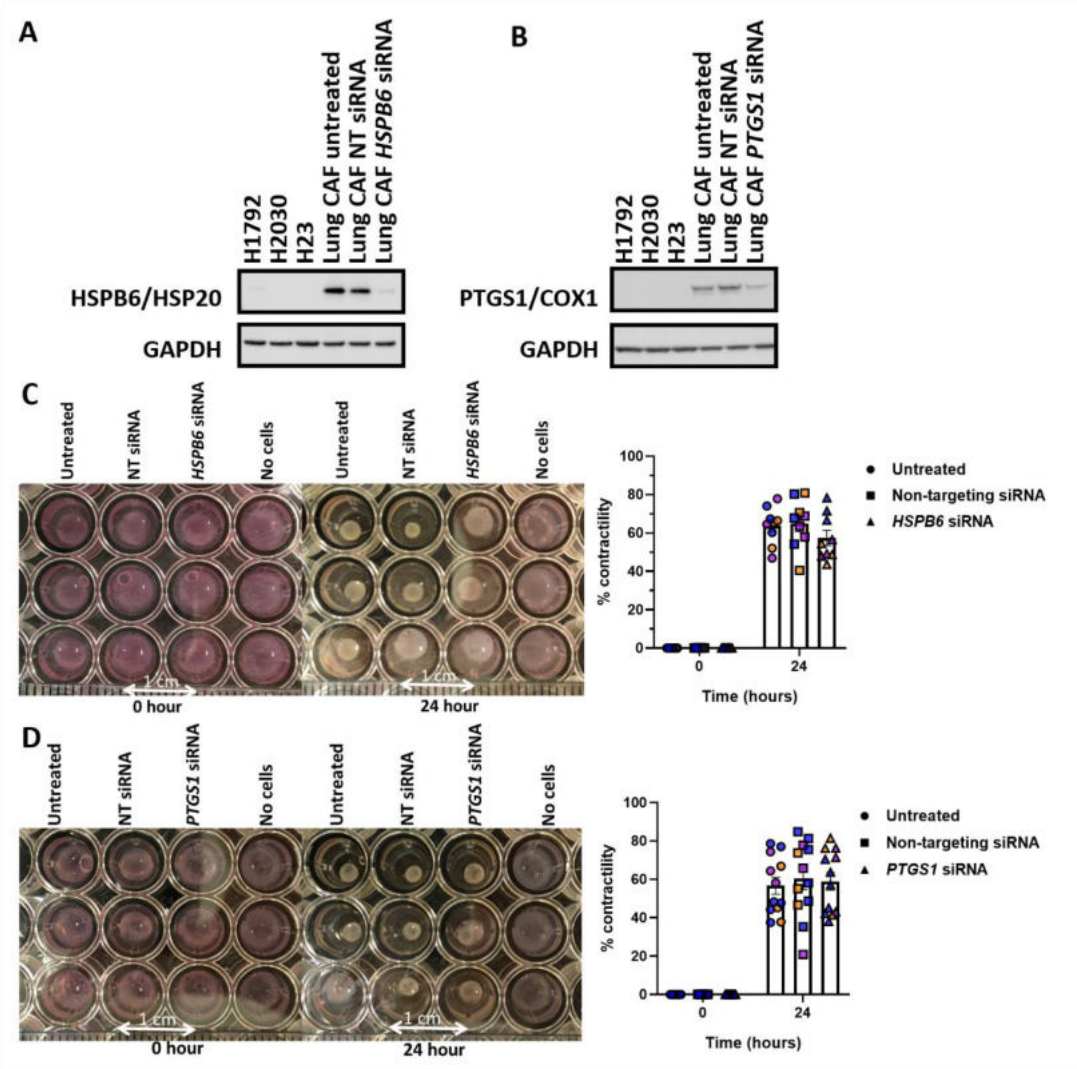


Figure 3.12 Role of heat shock protein β-6 (HSPB6/HSP20) and cyclooxygenase 1 (PTGS1/COX1) in lung CAF contractile activity Lung CAFs were either untreated or transfected with non-targeting (NT) siRNA or siRNA targeting HSPB6 or PTGS1. Immunoblots probed for **(A)** HSPB6 or **(B)** PTGS1 expression in lung cancer and (un)transfected lung CAFs. Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) was used as a loading control. Images are representative of three independent experiments. **(C-D)** Lung CAFs were embedded in a gel containing 4.6 mg/ml type I collagen and 2.2mg/ml matrigel and gels containing no cells were used as a control. Photographs of the gel were taken at the 0 and 24 hour timepoint after the gel was set and lifted from the well. Gel contractility was assessed as a percentage of the gel area compared to well area using ImageJ. Purple= repeat 1, orange= repeat 2, blue = repeat 3. The data is plotted as mean ± standard error of the mean (SEM).

3.4 Discussion

Characterising and comparing the basal state proteome between CAFs and *KRAS* mutant-cancer cells facilitates our understanding on the functional differences between the cell types and defines the CAF and tumour features that can be associated with the downstream analysis on the role of CAFs on *KRAS* mutant-cancer cells. Therefore, deep quantitative basal state proteome profiling was undertaken on three CRC cell lines (H747, LIM2099, SW620), three NSCLC cell lines (H1792, H2030, H23), three PDAC cell lines (CAPAN1, DANG, MIAPACA2) and three CAF cell line models (colorectal CAF, lung CAF and PSC). Alternatively, basal state proteome analysis of paired CAF and cancer cell lines would have allowed for a representative direct comparison between the cell types but the use of established cancer cell lines in my project allowed for comparisons with existing databases and literature in any downstream analysis.

The combined proteome dataset from 1% SDC lysis buffer and 5% SDS lysis buffer reliably detected over 9000 proteins with a high correlation in the protein abundance between the biological and technical repeats. Clustering and enrichment analysis highlighted that cell type is a key proteome determinant due to the distinct separation between cancer and CAF cell line models. However, CRC LIM2099 having a more similar profile to the CAF cell line

models compared to the other cancer cell lines may be driven by *p53* mutational status as LIM2099 and the CAF cell lines are *p53* wildtype whilst the other cancer cell lines are *p53* mutant. It would be interesting to knockout *p53* or transfect mutant *p53* to see whether the proteome profile of LIM2099 would become more similar to the other cancer cell lines. Furthermore, the differential enrichment of DNA processes separate LIM2099 and CAF cell lines from the other cancer cell lines and p53 is known to have a critical role in regulating DNA replication and repair (166). Expanding the panel to include additional wildtype *p53/KRAS* mutant-cancer cell lines would validate our observations.

Comparison of the protein expression between the cell types (CAF vs cancer) identified proteins which are depleted and enriched in CAFs. This corroborated what is known in the literature on the conventional myofibroblastic CAFs since common positive and negative CAF markers were identified, such as ACTA2/α-SMA and EPCAM, respectively (121, 122). The proteome analysis reveals additional CAF specific components that have not been associated as CAF markers in the literature to the best of our knowledge.

Both HSPB6 and PTGS1 were identified as highly CAF-enriched proteins, which have not been associated with CAFs in the literature. Assessing protein expression in a panel of normal cell lines highlighted that HSPB6 and PTGS1 are particularly highly expressed in fibroblasts and lowly expressed in cancer cell lines. Therefore, these two markers were further investigated as potential positive markers that contribute to the CAF profile and allow CAFs to be distinguished from cancer cells.

From our IHC analysis, both HSPB6 and PTGS1 were lowly expressed in the tumour epithelium compared to the stroma, which is in line with our basal state proteome analysis. As potential CAF markers, HSPB6 and PTGS1 was expected to correlate with positive CAF marker FAP but HSPB6 and PTGS1 had higher expression in FAP negative stroma. This could be because the IHC analysis did not take CAF subtypes into account and it is possible that HSPB6 and PTGS1 are expressed at higher levels in low FAP expressing CAFs (e.g inflammatory and antigen presenting CAFs) compared to the conventional high FAP expressing CAFs (e.g myofibroblastic CAFs). Probing the protein expression of HSPB6 and PTGS1 in different CAF subtypes with variable FAP expression would validate this because there was no data on *HSPB6* and *PTGS1* RNA expression in Elyada *et al* where they detailed differential expression of conventional markers, including *FAP* and *ACTA2*, between different CAF subtypes.

Although high HSPB6 and PTGS1 expression in CAFs is not crucial for contractility activity, contractility is only one of the features for activated fibroblasts, specifically those of the myofibroblast subtype. Assessing HSPB6 and PTGS1 expression in correlation to activation status would be difficult given that established fibroblast cell lines are adapted to grow *ex vivo* and so would be activated whilst in contrast, quiescent/resting fibroblasts are difficult to culture.

Currently, cancer research has highlighted that PTGS1/2 has a critical role in cancer-related inflammation since it synthesises prostaglandins from arachidonic acid and it is a target for non-steroidal anti-inflammatory drugs (167-169). With a role in inflammation, it may explain the higher PTGS1

expression in FAP negative stroma, containing the inflammatory CAF subtypes, and PTGS1 expression in CAFs may further contribute to the inflammatory microenvironment. PTGS2 is not CAF-enriched and so probing any distinct functions between PTGS1 and PTGS2 in CAFs may provide an insight on how CAFs may maintain an inflammatory response in the microenvironment.

Contrastingly, there are minimal studies on HSPB6 in cancer research but there is more research on HSPB6 in the context of cardiology. Of the few cancer studies, HSPB6 is thought to inhibit proliferation by inhibiting the PI3K activity (170, 171) and to also regulate apoptosis in hepatocellular carcinoma cells (HuH7) through interacting with Bcl-2-associated X protein (BAX) and enhancing caspase activity (172).

On the contrary, HSPB6 phosphorylation in cardiomyocytes has been proposed to have a cardioprotective role in preventing apoptosis through BAX interactions but inhibiting caspase activity (173) but the contradictory roles of HSPB6 on apoptosis may be cell/tissue type dependent. Moreover, it has been suggested that HSPB6 has a role in IL-6 secretion during cardiac dysfunction, which promotes myofibroblast activation and fibrotic remodeling (174). As a result, HSPB6 in CAFs could have a critical role in regulating protein secretion to drive a favourable environment among neighbouring non-activated fibroblasts and/or the cancer cells. Manipulating HSPB6 expression in CAFs through introducing recombinant HSPB6 or the use of overexpression or knockdown/knockout systems could be undertaken to determine whether HSPB6 affects the (phospho)proteome or protein secretion of CAFs and its consequent effect on cancer cells.

Even though HSPB6 predominantly resides in the cytosol, HSPB6 has been reported to be secreted by cardiomyocytes through exosomes (175, 176). HSPB6 was identified in media exposed to CAFs (described in Chapter 4 section 3.4) but as it is not a conventional secreted protein and microvesicles were not isolated, it was not defined as one of the secreted proteins in the secretome analysis. As a result, the role of CAF-derived secreted HSPB6 was not further validated or investigated.

It is also worth noting that CRYAB, another small heat shock protein, was also highly expressed in the CAF cell line models compared to the cancer cell lines on average. Since HSPB6 is known to form dimeric structures (177), it is possible that the high CRYAB expression coinciding with the high HSPB6 expression in CAFs is due to the interactions between the two small heat shock proteins. HSPB1 is also known to dimerise with HSPB6 but this protein was not enriched in the CAF cell line models. Probing the effects of different HSPB6 oligomeric structures in CAFs, including substrate specificity and chaperone activity, may provide a rationale behind the variable small heat shock protein expression.

Overall, our basal state proteome data presents a deep quantitative analysis on the profile of markers associated with cancer cells and CAFs, highlighting potential, as well as known, proteins that distinguishes CAFs from cancer cells. The differential proteome profile demonstrates that CAFs have distinct biology compared to cancer cells and this may help drive drug resistance and cancer progression in biological processes where cancer cells lack or unable to sustain on its own. This is particularly highlighted by the enrichment of N-glycosylation processes and potential secreted proteins in the CAF cell line

models compared to cancer cell lines. Perturbation analysis, such as genetic manipulation, of the cells could further refine the classification of the different cell types. As more is understood about CAF function and its importance in drug resistance, CAFs could be targets of novel cancer therapies in the future.

Chapter 4 Investigating how CAF-derived secreted proteins influence signalling in *KRAS* mutant-cancer cells at the basal state level

4.1 Introduction

Profiling proteins secreted from a cell population, also termed as the secretome, highlights the external stimuli that is likely to activate or suppress signalling pathways between cells and so is informative of how certain diseases may progress and respond to treatment. Current literature suggests that 13-20% of the proteome corresponds to secreted proteins (178, 179).

There have been secretome studies which compare CAFs with normal fibroblasts to investigate the molecular signatures associated with activation status and so potential regulators of cancer progression (180-182). Furthermore, there have been many secretome studies that characterise cancer cells to identify potential biomarkers and to understand biological processes including metastasis (183-189). However, elucidating the differentially expressed secreted proteins between CAFs and *KRAS* mutant-cancer cells alongside whole proteome datasets could reveal potential mechanisms on how the two cell types interact because ligand and receptor expression can be determined, respectively. Tape *et al* have investigated reciprocal signalling between PSCs with *KRAS* mutant-cancer cells from mice using cell type specific labelling with amino acid precursors (CTAP) and they identified that SHH from the pancreatic cancer cells activates PSCs through antibody arrays (136). This targeted approach requires high quality verified antibodies and *a priori* knowledge of known ligands and signalling pathways. Complementing this approach with global analysis of the secretome between human CAFs and *KRAS* mutant-cancers in different tissues combined with the functional characterisation of the impact of the secreted proteins, such as

phosphoproteomics, could highlight pathways by which the stroma drives cancer drug response and progression.

The secretome can be characterised using media extracted from cell culture, also known as conditioned media (CM). Mass spectrometry analysis can allow for an unbiased global search for the secreted proteins and can currently undertake multiplexed analysis of up to 18 samples at a time (190). However, typical cell culture media has a wide dynamic range, which comprises lowly abundant secreted proteins of interest that can be as low as ng/ml, amongst the highly abundant serum components, which are often in the mg/ml range.

There have been emerging strategies in attempt to analyse serum containing-CM directly (191-193) but these rely on modified amino acids, such as azide containing methionine (azidohomoalanine) and/or stable isotope labelling with amino acids in cell cultures (SILAC). The use of these amino acids can cause false negative results if the corresponding amino acid does not exist in the peptide sequences and labelling is not 100% efficient. In addition, this type of metabolic labelling is difficult to optimise as it is unphysiological and high concentrations of arginine isotopes can be converted to proline in some cells (194). These current approaches to analyse serum-containing CM directly also depend on enriching the newly synthesised secreted proteins through affinity chromatography where sample loss is likely to occur due to non-specific interactions with the column or early elution in the flow throughs. This may be in part be responsible for the limited identifications, in the 500 protein range, when there is potential for thousands of components in the secretome.

Unlike serum containing CM analysis, serum deprivation is a conventional and simple method to reduce the dynamic range of the CM samples and allows for better detection of the lowly abundant secreted proteins of interest as opposed to the highly abundant serum proteins, such as albumin. Nevertheless, serum free CM is not completely ideal because the length of serum deprivation must capture proteins from proliferating and viable cells but also minimise the leakage of contaminating proteins due to cell lysis and stress.

Although the approach of CM using mass spectrometry has various caveats, the CM samples represents a starting point in discovery research which allows the unbiased identification of potential secreted proteins that can be associated with signalling changes at the basal state (Chapter 4) and the differential drug response and mechanisms mediated by CAFs (Chapter 5 and 6)

4.2 Aims

Previously, CAF cell line models were demonstrated to have a distinct proteome and biology compared to the cancer cell lines (Chapter 3). Therefore, to understand how the CAF cell line models could interact with the cancer cell lines and so mediate differential drug responses, the differential secretome profiles between the CAFs and cancer cells was characterised and how these differentially secreted proteins could influence signalling in *KRAS* mutant-cancer cells at the basal state level was investigated.

To characterise the potential CAF-cancer interactions, the aims were to:

- Optimise the parameters for CM sample preparation for mass spectrometry analysis

- Identify the differentially expressed secreted proteins between CAF and cancer cells and associate them with the cognate receptor expression in the basal state proteome analysis
- Characterise the effect of CAF CM compared to cancer CM on the basal state (phospho)proteome in *KRAS* mutant-cancer cells

4.3 Results

4.3.1 Cell lines tolerate 24 hour serum deprivation

Although serum deprivation is a common strategy to minimise serum protein interference in CM samples to profile the secretome, there is the risk of inducing cellular stress/death. To minimise the impact on cell physiology, serum deprivation is introduced after the cells have reached ~60% confluency, where the cells would be growing in the exponential phase. Most studies have typically used 24 hour incubation periods for serum free CM preparation in secretome analysis (182-184, 189) whilst a shorter incubation may not be sufficient time for an accumulation of secreted protein in the CM. Some studies have used a longer incubation period of 48 hours in serum free conditions (180, 181, 195) but this would increase the risk of compromising the cells and contaminating the CM with proteins from cellular stress/death. Therefore, CM samples for the basal state secretome analysis was prepared by cells exposed to serum free media for 24 hours.

To assess the impact on cell integrity with this CM approach, lactate dehydrogenase (LDH) activity was measured in the CM with or without serum alongside an internal positive control containing LDH and a positive control of cells incubated in 0.1% triton-x100, which permeabilises the membrane (Figure 4.1). LDH is an intracellular protein and so low LDH activity in the CM

is expected if there is minimal damage to the plasma membrane. The assay was undertaken in the CM from lung CAF and lung cancer H23 cells and there was low LDH activity in the CM without serum compared to the cells incubated in triton-x100. This demonstrates that serum deprivation did not compromise the plasma membrane either through cell lysis or death. Thus, it is unlikely that resident cytoplasmic proteins will be leaked into the CM samples from a loss of cell integrity and contaminate the secretome analysis. Furthermore, this was replicated across all 12 cell lines because the percentage of viable cells was assessed using trypan blue before secretome analysis and all samples had >85% viability after serum deprivation.

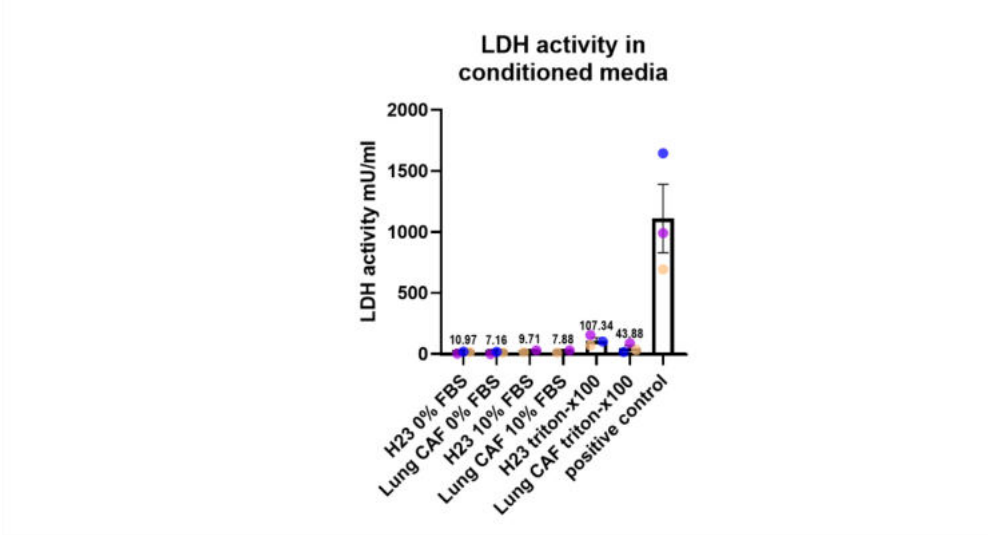


Figure 4.1 Assessing the tolerability of cells under serum deprivation Lactate dehydrogenase (LDH) activity was measured in conditioned media with 0% or 10% foetal bovine serum (FBS) generated from cells in flasks. This was done alongside an internal positive control containing LDH and a positive control of cells incubated in 0.1% triton-x100. LDH activity is normalised to the appropriate blank media with 0%, 10% FBS or 0.1% triton-x100. Three independent experiments with two technical repeats were undertaken in lung cancer H23 and lung cancer-associated fibroblasts (CAFs). Data is plotted as mean ± standard error of the mean (SEM) of the three independent experiments.

4.3.2 Identifying the secreted and membrane proteins from our basal secretome dataset

Although the removal of serum proteins reduces the dynamic range of the CM samples, the secreted proteins of interest are diluted in the media. Various protein extraction methodologies were investigated using aliquots of CM from lung cancer H23 cells to determine the approach which identifies the highest number of secreted proteins in a reproducible and feasible manner from our CM samples (described in Chapter 2 methods section 2.3). Compared to the other approaches, TCA precipitation identified the highest number of secreted proteins and it had the least number of experimental steps and sample transfers, which would minimise the risk of protein loss. Consequently, TCA precipitation was used for our basal state secretome analysis to extract and concentrate the protein from the CM.

Similar to the basal state proteome analysis (Chapter 3), the CM samples from 3 CAF cell line models, 3 *KRAS* mutant-CRC, 3 *KRAS* mutant-NSCLC and 3 *KRAS* mutant-PDAC cell lines were characterised in a multiplexed manner (12plex) in triplicates, each representing biological repeats. Therefore, 36 CM samples were analysed in total. The protein abundance was normalised by the sample median abundance and $\log_2$ transformed and centred at zero (Figure 4.2A). From this, 5739 proteins (including 57 variant proteins) were quantified and over 5700 proteins were quantified across all the samples (Figure 4.2B).

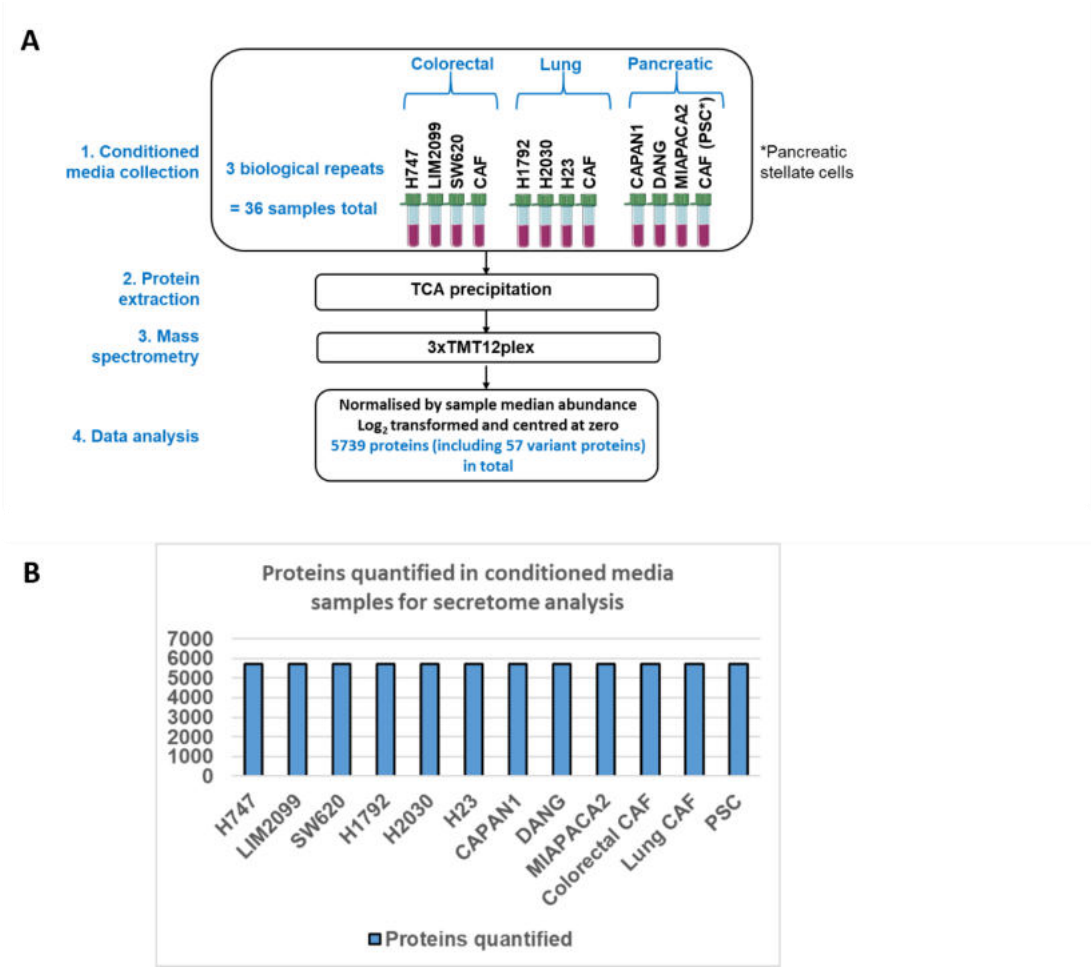


Figure 4.2 Basal state secretome dataset workflow (A) The basal state secretome was obtained from conditioned media samples derived from 12 cell lines (3 cancer-associated fibroblast (CAF) cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines) in a 12plex with each run representing biological replicates. 3 tandem mass tag (TMT) batches were run. Protein was extracted using trichloroacetic acid (TCA) precipitation. Protein abundance was normalised by sample median abundance, log_2 transformed and centred at zero. **(B)** Barplot of the proteins quantified (excluding contaminants) in the basal state secretome of 12 cell lines.

Secreted or transmembrane (S/TM) proteins were identified using different prediction software and databases (SignalP (141), SecretomeP (142), TMHMM (143), CSPA (144), surfaceome (145), FANTOM5 (146) and vesiclepedia (147)). Transmembrane proteins were datamined because these proteins can exist on microvesicles. Of the 5739 proteins quantified, 2573 proteins (including 22 variant proteins) were predicted to be S/TM (Table 4.1) where over 2550 proteins were quantified across all cell lines (Figure 4.3A).

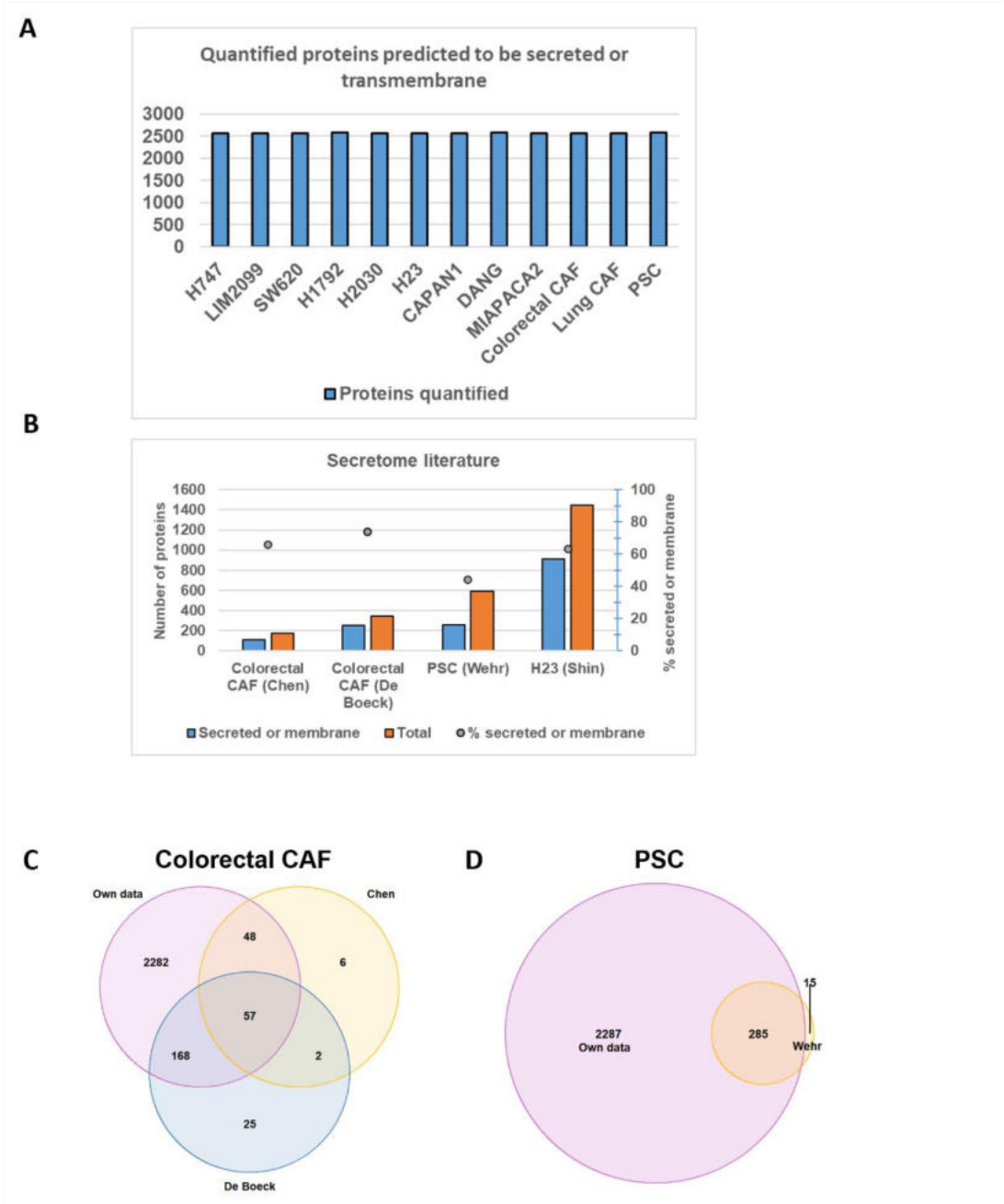
Therefore, 44.8% of the proteins quantified from the CM samples were predicted to be S/TM.

	Number of proteins
Total proteins identified by mass spectrometry	5739 (57 variants)
SignalP (classical secretion)	977 (11 variant)
SecretomeP (non-classical secretion)	1003 (3 variant)
TMHMM (transmembrane proteins)	808 (6 variant)
Cell surface protein atlas (transmembrane proteins)	672 (8 variant)
Surfaceome (transmembrane proteins)	458 (3 variant)
FANTOM5 (signalling ligands)	263 (6 variant)
Vesiclepedia (extracellular vesicle)	460 (5 variant)
Total proteins predicted to be secreted *	2573 (22 variant)

Table 4.1 Number of proteins predicted to be secreted or transmembrane in the basal state secretome analysis Proteins were predicted to be secreted or transmembrane using different prediction software (SignalP (141), SecretomeP (142), TMHMM (143)) and databases (Cell surface protein atlas (144), surfaceome (145), FANTOM5 (146) and vesiclepedia (147)). *Note that some proteins were identified in multiple prediction software and databases.

To determine how this compares to secretome studies, some literature datasets were mined for S/TM proteins in the same manner as our secretome analysis because the use of prediction software and databases varied between studies. Our secretome analysis has a similar percentage compared to the literature where ~40-70% of all the proteins identified are predicted to be S/TM but the total number of S/TM proteins identified is higher in our analysis (Figure 4.3B). This is likely due to our multiplexed analysis of many cell lines which would amplify signal to noise levels in the collected mass spectra. There are some secretome studies that quantified 2000-3000 proteins in total from multiple cell lines, such as Hu *et al* (183) and Wu *et al* (184), but these studies were not assessed because the protein identification datasets were inaccessible due to being embedded into only PDF format and/or the use

of the old International Protein Index. Furthermore, there is a significant overlap in the S/TM protein identifications between our analysis and the literature for colorectal CAFs, PSC and H23 lung cancer cells (Figure 4.3C-E). It is noted that the large number of common identifications may be distorted by the higher number of identifications in our analysis but the shared identifications strengthen the reliability that our analysis is representative of the cell types of interest.



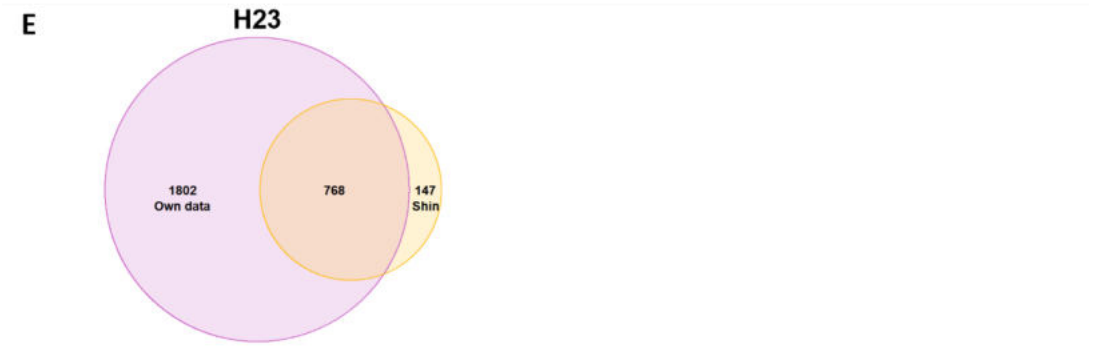


Figure 4.3 Our secretome analysis in comparison to the current literature (A) Barplot of the proteins predicted to be secreted or transmembrane in the basal state secretome of 12 cell lines (3 cancer-associated fibroblast (CAF) cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines). **(B)** Plot of the number of proteins predicted to be secreted or transmembrane, total proteins identified and the percentage of predicted secreted or transmembrane proteins in relation to total proteins identified in the literature (180, 181, 186, 195). **(C)** Venn diagram comparing the predicted secreted or transmembrane protein identifications in colorectal cancer-associated fibroblasts (CAFs) from our secretome analysis dataset with the study by Chen *et al* and De Boeck *et al* (180, 181). **(D)** Venn diagram comparing the predicted secreted or transmembrane protein identifications in pancreatic stellate cells (PSC) from our secretome analysis dataset with the study by Wehr *et al* (195). **(E)** Venn diagram comparing the predicted secreted or transmembrane protein identifications in H23 from our secretome analysis dataset with the study by Shin *et al* (186).

The majority of S/TM protein identifications were found in our basal state proteome analysis described in chapter 3 (2051 out of 2573 S/TM proteins=79.7%) (Figure 4.4A) but this is only a small proportion of the basal state proteome (2051 out of 9460 proteins=27.7%). Therefore, some of the S/TM protein identifications would have been masked by the large proportion of non-secreted proteins in the proteome if the secreted proteins were characterised using the basal state proteome analysis alone.

Of the S/TM proteins identified in our secretome analysis that were also detected in our proteome analysis, there was a high correlation in the protein abundance between the two datasets (Figure 4.4B). This perhaps indicates that our secretome analysis is reflective of viable proliferating cells given that our basal state proteome analysis involved cells cultured under the normal

10% serum conditions. Secretome inhibitors, such as brefeldin A which inhibits proteins transport between the ER and Golgi in the classical secretion pathway, could be used to further validate the secreted protein identifications in our basal state secretome analysis. Currently, the secretome of breast cancer MCF7 and skeletal muscle C2C12 cells with brefeldin A have been investigated (196, 197) but not in our cell lines of interest.

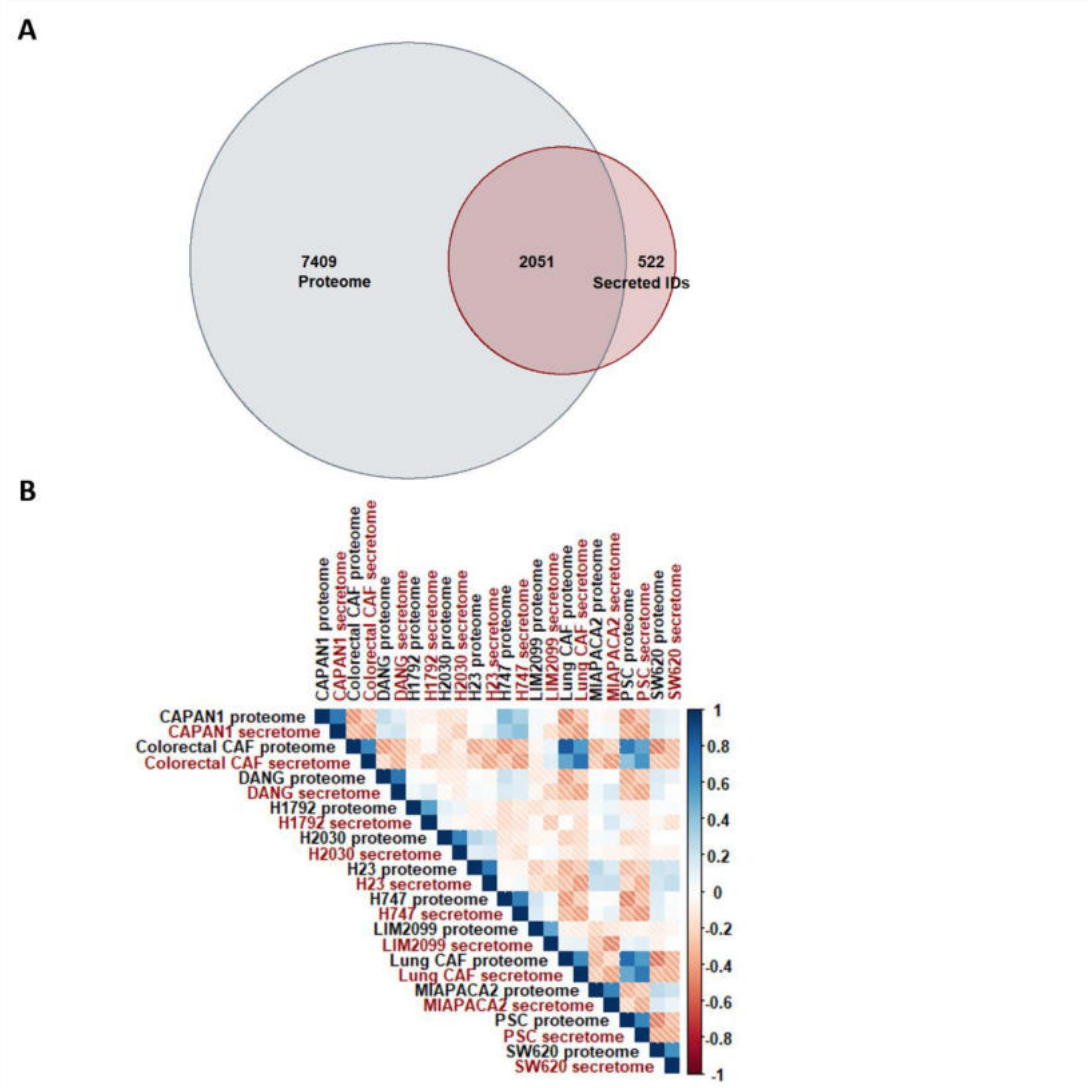


Figure 4.4 Comparing the basal state proteome and secretome analysis (A) Venn diagram comparing the proteins predicted to be secreted or transmembrane in the secretome analysis with the total protein identifications from the basal state proteome. **(B)** Correleogram of the basal state proteome and secretome analysis for each of the 12 cell lines whereby the mean protein abundance was taken for each cell line.

4.3.3 Cell type is a key determinant of the basal secretome profile

Like the basal state proteome analysis (Chapter 3), PCA revealed that the biological replicates of the CM samples clustered together but there is a distinct separation between cancer cells and CAF cell line models (Figure 4.5A). Collagen type 1 alpha 1 was again one of the highest positive loading for PC1 (0.11) but the highest was SDC2 (0.16) , which is known to be highly expressed in CAFs (161) and was confirmed in our basal state proteome analysis (Figure 3.4I).

The diversity in the global basal state secretome profile between cell lines based on the CM samples was further assessed by ANOVA testing. 1726 proteins (including 15 variant proteins) were differentially expressed between the cell lines. Hierarchical clustering of these differentially expressed proteins demonstrated clustering similar to that of the basal state proteome whereby the CAF cell line models were clustered together and were generally separated from the cancer cell lines (Figure 4.5B). CRC LIM2099 also appears to be more similar to the CAF cell line models. This indicates that cell type is a key determinant of the basal state secretome and proteome profiles and that differentially secreted proteins between the cell types may reveal information about how signalling is mediated between CAFs and cancer cells.

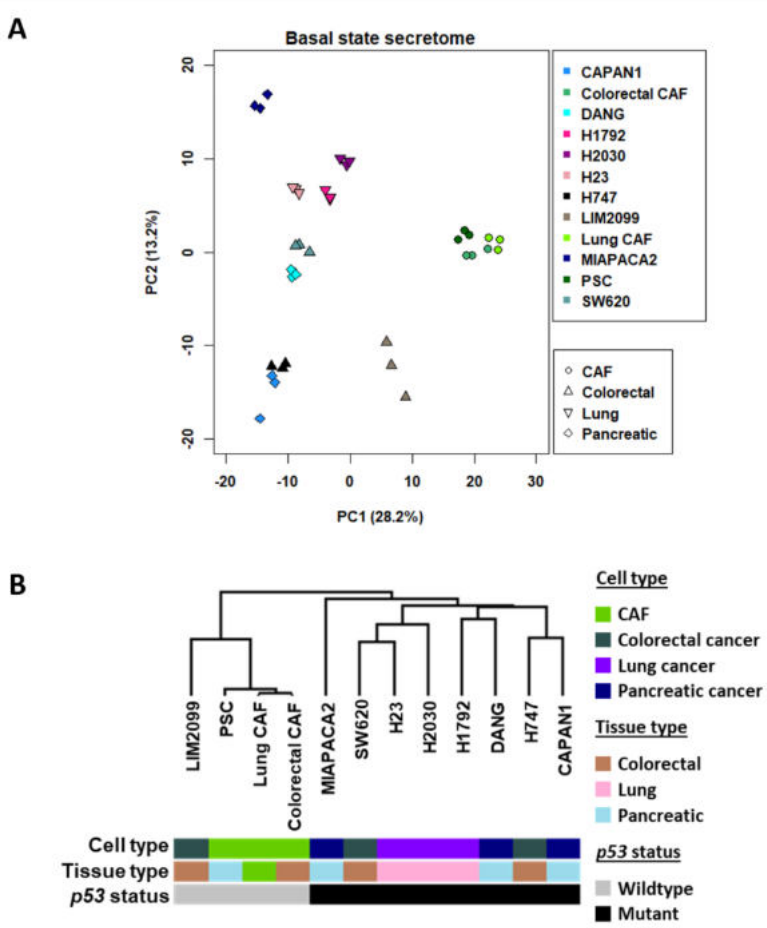


Figure 4.5 Differential expression of secreted or transmembrane proteins between the conditioned media (CM) samples from different cell lines (A) Principal component analysis of the proteins predicted to be secreted or transmembrane in the basal state secretome analysis. **(B)** Hierarchical clustering of the cell lines (mean protein abundance) according to significant differential expression of the predicted secreted or transmembrane proteins determined using ANOVA test between cell lines (Permutation based FDR= 0.05, 250 randomisations).

4.3.4 Mining for differentially secreted proteins between the CAF CM and *KRAS* mutant-cancer CM

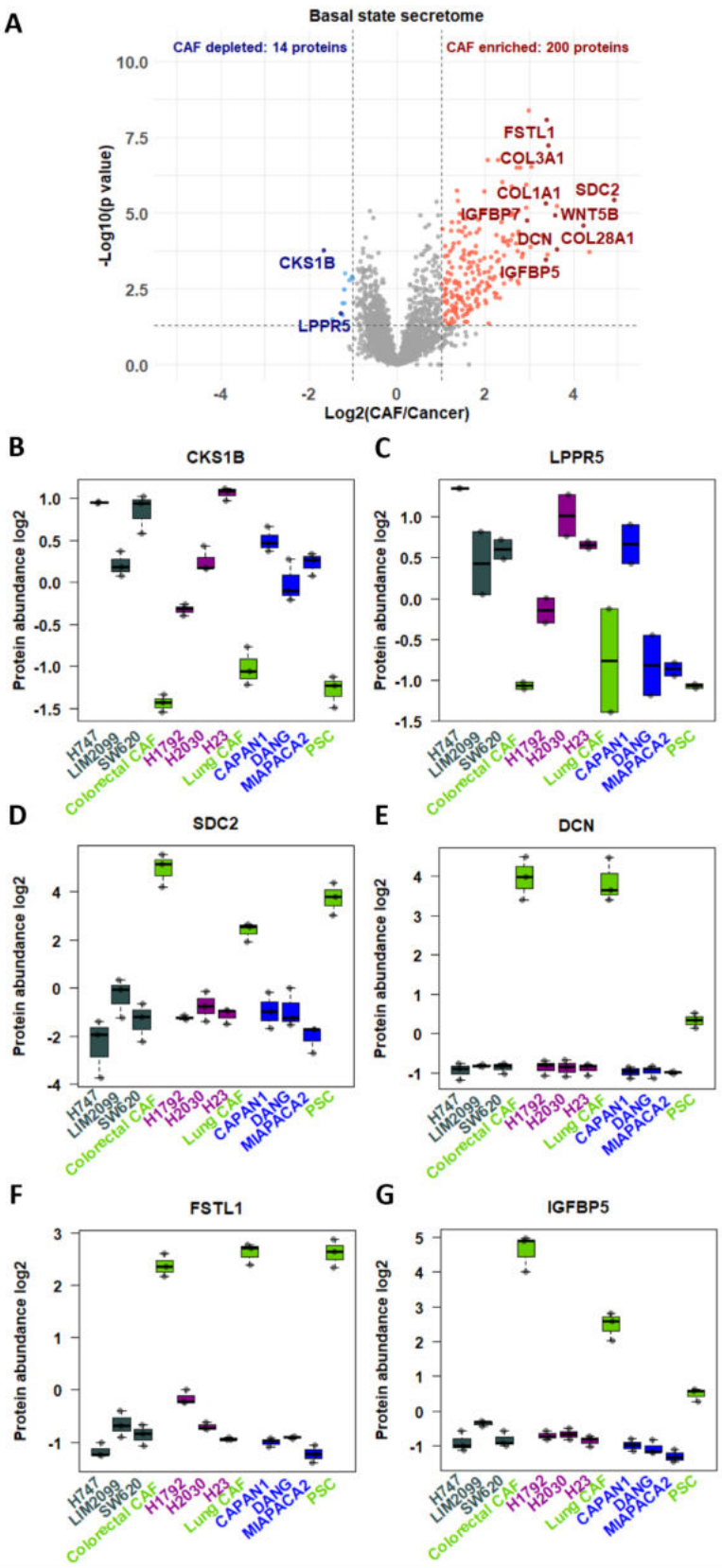
T-test between the proteins identified in CM samples from the CAF cell line models and *KRAS* mutant-cancer cell lines was undertaken to identify the S/TM proteins that are differentially expressed between the cell types (Figure 4.6A). 214 S/TM proteins (4 of which were variant proteins) were found to have >2-fold (abs.log_2>1) significant differential expression between the CM samples from the CAFs and cancer cell lines on average. Of these 214 proteins, the majority were enriched in the CAF CM (200 proteins where 4 of

which are variant) whilst 14 proteins had higher expression in the *KRAS* mutant-cancer CM (Appendix Table 3-4).

Of the 14 cancer-enriched secreted proteins, 11 proteins had higher expression in the secretome of all cancer cell lines compared to the secretome of the CAF cell line models within a tissue type with a range from 2- to 3-fold change between cell lines grouped by cell types (CAF vs cancer). Cyclin-dependent kinases regulatory subunit 1 (CKS1B) and lipid phosphate phosphatase related protein type 5 (LPPR5) had the highest enrichment in cancer cell lines for all tissue types (Figure 4.6B-C).

In contrast, 155 secreted proteins had higher expression in the CM of the CAF cell line models compared to CM of all cancer cell lines within a tissue type and the differential expression was larger compared to cancer-enriched secreted proteins (2- to 30-fold). Of the proteins which have the highest fold difference, some are reported to be upregulated in CAFs and replicate our basal state proteome analysis (Chapter 3), such as syndecan 2 (SDC2) (161), decorin (DCN) (198), follistatin like 1 (FSTL1) (150), insulin growth factor binding protein 5/7 (IGFBP5/7) (199, 200) and collagens (122, 201), including COL28A1, COL3A1 and COL1A1 (Figure 4.6D-K).

Wnt family member 5B (WNT5B) was also identified as one of the highest CAF-enriched secreted signalling ligands (Figure 4.6L). WNT5A, a paralog of WNT5B, is known to be secreted by the stroma (202, 203) but there are minimal studies on WNT5B which may be due to the high sequence homology that has led to the assumption that WNT5B has a similar biological function to WNT5A.


A
Basal state secretome
CAF depleted: 14 proteins
CAF enriched: 200 proteins
-Log10(p value)
Log2(CAF/Cancer)
FSTL1
COL3A1
COL1A1
SDC2
IGFBP7
WNT5B
DCN
COL28A1
IGFBP5
CKS1B
LPPR5
B
CKS1B
C
LPPR5
D
SDC2
E
DCN
F
FSTL1
G
IGFBP5
Protein abundance log2
H747
LIM2099
SW620
Colorectal CAF
H1792
H2030
H23
Lung CAF
CAPAN1
DANG
MIAPACA2
PSC

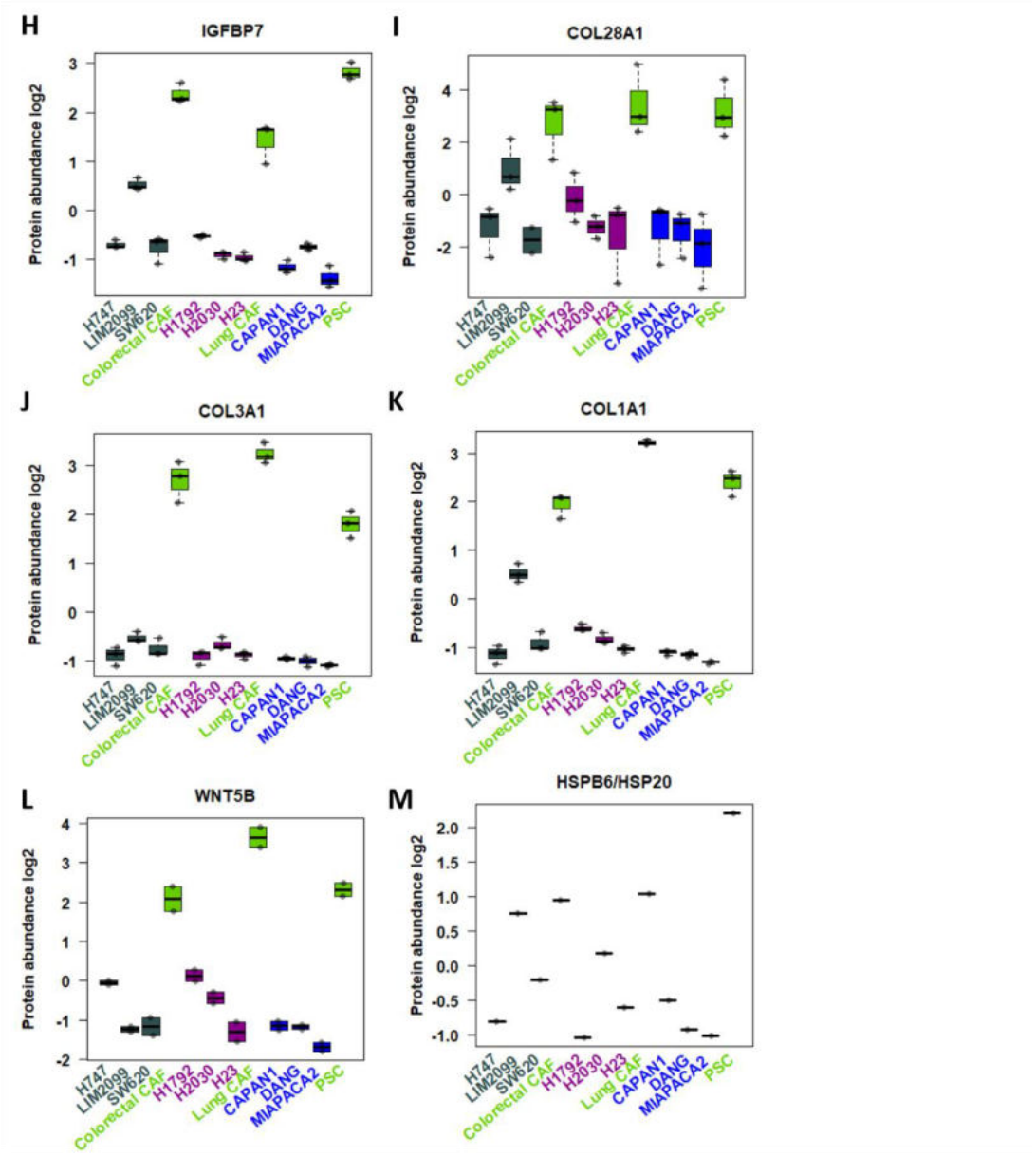


Figure 4.6 Differential expression of the predicted secreted or transmembrane proteins between the conditioned media (CM) samples by cell type (A) Volcano plot of the t-test analysis of the predicted secreted and transmembrane proteins between the cell types (Cancer associated fibroblasts (CAFs) vs cancer) whereby significant differentially expressed proteins were defined by the cutoffs 2-fold (abs.$\log_2$>1)) and p <0.05 (-$\log_{10}$(0.05) = 1.3). Boxplot of protein expression of **(B)** cyclin-dependent kinases regulatory subunit 1 (CKS1B), **(C)** Lipid phosphate phosphatase related protein type 5 (LPPR5), **(D)** syndecan 2 (SDC2), **(E)** decorin (DCN), **(F)** follistatin like 1 (FSTL1), **(G)** insulin growth factor binding protein 5 (IGFBP5), **(H)** IGFBP7, **(I)** collagen type 28 alpha 1 (COL28A1), **(J)** collagen type III alpha 1 (COL3A1), **(K)** collagen type I alpha 1, **(L)** Wnt family member 5B (WNT5B) and **(M)** heat shock protein β-6 (HSPB6/HSP20) using our secretome dataset from 12 cell lines (3 CAF cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines). PSC = pancreatic stellate cells. Green=CAF, grey= colorectal cancer, purple=lung cancer, blue=pancreatic cancer

Although HSPB6 was identified as a potential CAF-enriched marker in our basal state proteome analysis (Chapter 3), HSPB6 was not annotated as a S/TM protein because HSPB6 is an established cytoplasmic protein but studies have detected HSPB6 in exosomes (175, 176). This illustrates one main limitation to the analysis as the use of existing software and databases depend on known secreted protein features and annotations, which may not be updated with all the literature, and exosomes were not isolated from the CM to assess other potential cytoplasmic proteins that could be encapsulated in microvesicles. Nonetheless, higher HSPB6 expression was detected in CAF CM compared to cancer CM (Figure 4.6M) but isolation of microvesicles or exosome inhibitors, such as GW4869, would validate whether HSPB6 were secreted via microvesicles.

4.3.5 Mining for tissue specific CAF-enriched secreted proteins

Similar to the basal state proteome analysis, there were no S/TM protein identifications unique to only CAF CM. When comparing CAF-enriched proteins in the CM specific to tissue types, fibromodulin (FMOD), complement factor D (CFD) and collagen type XIV alpha 1 chain (COL14A1) were identified as colorectal CAF-enriched secreted proteins with >2-fold (abs.$\log_2$>1) expression compared to all the cancer cell lines and other CAF cell line models (Figure 4.7A-C). COL14A1 was identified as a colorectal CAF-enriched protein in the basal state proteome analysis (Figure 3.6D) so this reaffirms our findings. For lung CAF CM, tetranectin (CLEC3B) and ectonucleotide pyrophosphatase/ phosphodiesterase family member 2 (ENPP2) were highly expressed compared to the CM of all the cancer cell lines and other CAF cell line models (Figure 4.7D-E) whilst no protein was identified to be specifically

PSC-enriched. As stated in the basal state proteome analysis, potential tissue specific CAF secreted proteins are not conclusive without further validation with a wider panel of CAFs from different tissue types and perhaps more proteome depth.

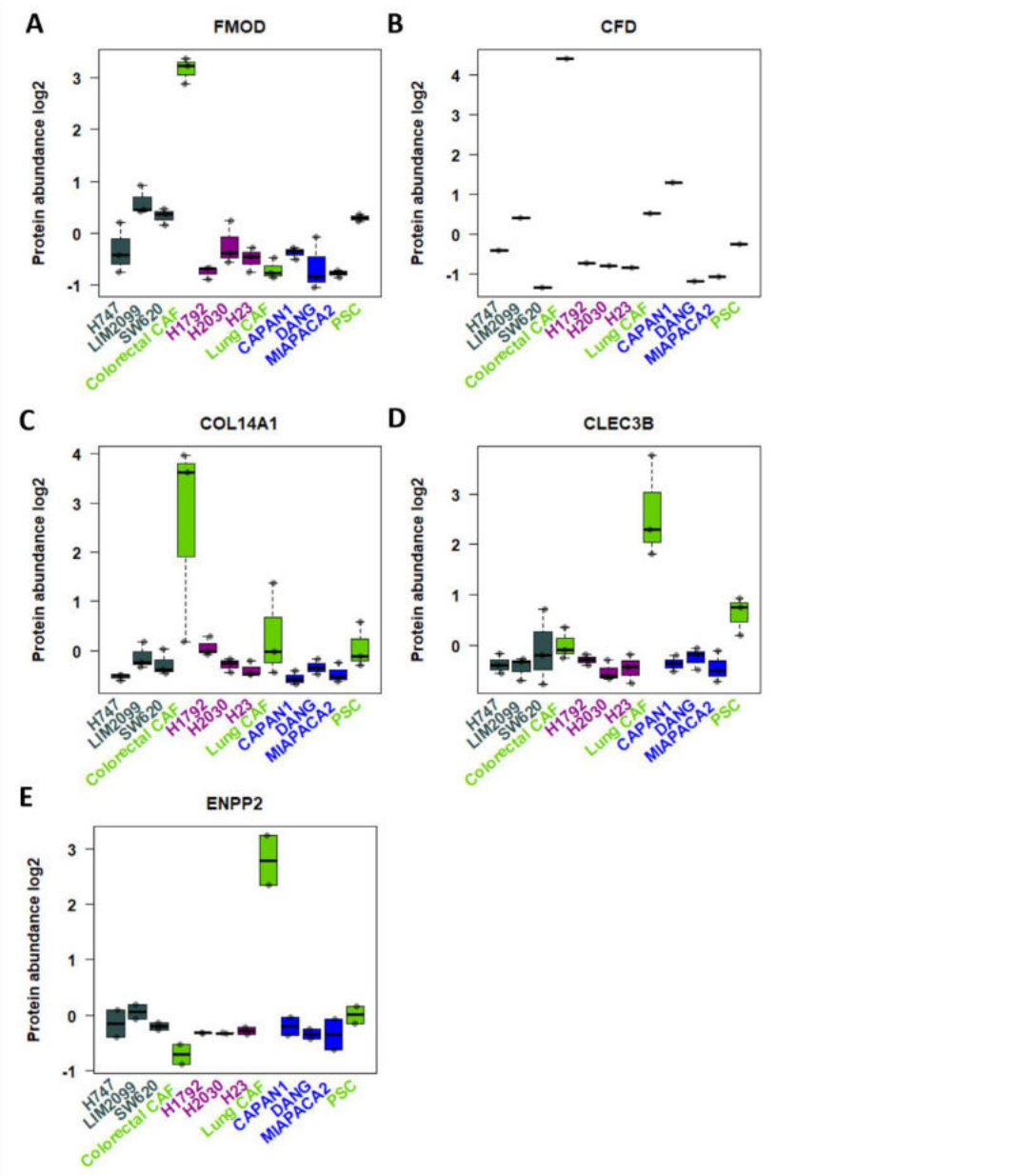


Figure 4.7 Potential tissue specific cancer-associated fibroblast (CAF)-enriched secreted proteins in the conditioned media (CM) Boxplot of protein expression of **(A)** fibromodulin (FMOD), **(B)** complement factor D (CFD), **(C)** collagen type XIV alpha 1 chain (COL14A1), tetranectin (CLEC3B) and ectonucleotide pyrophosphatase/phosphodiesterase family member 2 (ENPP2) using our secretome dataset from 12 cell lines (3 CAF cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines). PSC = pancreatic stellate cells. Green=CAF, grey=colorectal cancer, purple=lung cancer, blue=pancreatic cancer

4.3.6 Inferring potential CAF and cancer cross-talk using our basal state secretome and proteome datasets

To explore potential CAF-cancer interactions, the FANTOM5 interaction database was used, which contains a list of 2422 ligand and receptor pairs (146). Therefore, the basal state secretome analysis alongside the basal state proteome analysis (Chapter 3) were analysed to determine which ligands are CAF-enriched and what receptors are highly expressed in cancer cells compared to CAFs that can respond to the CAF-enriched ligands. This comparison was undertaken within a tissue type: e.g each CRC cell line was compared to colorectal CAF. Notably, this database is limited to well-established ligand-receptor pairs in the literature. For instance, WNT5B receptors are controversial (204-206) so potential CAF-derived WNT5B interactions with cancer receptors would not be defined by using the FANTOM5 interaction database.

85 ligand receptor pairs were identified in total and there were potential CAF-cancer interactions that were found common in 8 out of the 9 cancer cell lines. These include collagen type II alpha 1 chain (COL2A1) interacting with TNF receptor superfamily member 10A (TNFRSF10A) and DCN and HGF interacting with the receptor MET. COL2A1 interacting with TNFRSF10A was not identified for CRC LIM2099 whilst HGF and DCN interacting with MET was not identified for MIAPACA2. The highly expressing TNFRSF10A and MET receptors in cancer cell lines compared to CAFs are illustrated in Figure 4.8A-B. However, there were more cell line specific CAF-cancer interactions observed, suggesting that the CAFs may affect global signalling differently in each of the *KRAS* mutant-cancer cell lines.

The outcome of ligand and receptor binding is complicated by the different combinations of ligand-receptor pairs that may activate or inhibit the same downstream pathways or various pathways which converge onto a specific phenotype, such as cell cycle progression. For instance, HGF activates signalling downstream of MET whilst DCN has been reported to antagonise MET (207). Therefore, it is important to combine the identification of the secreted proteins with functional characterisation of the secreted proteins on the cells, such as phosphoproteome analysis.

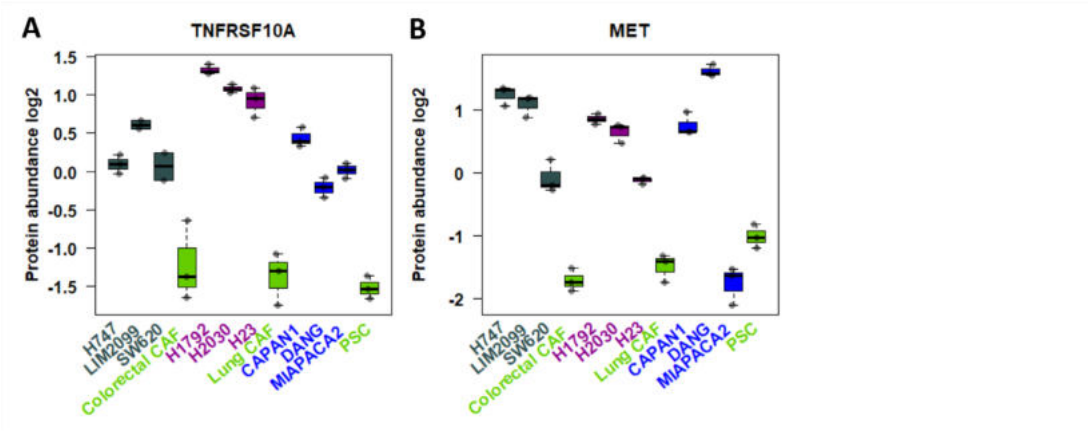


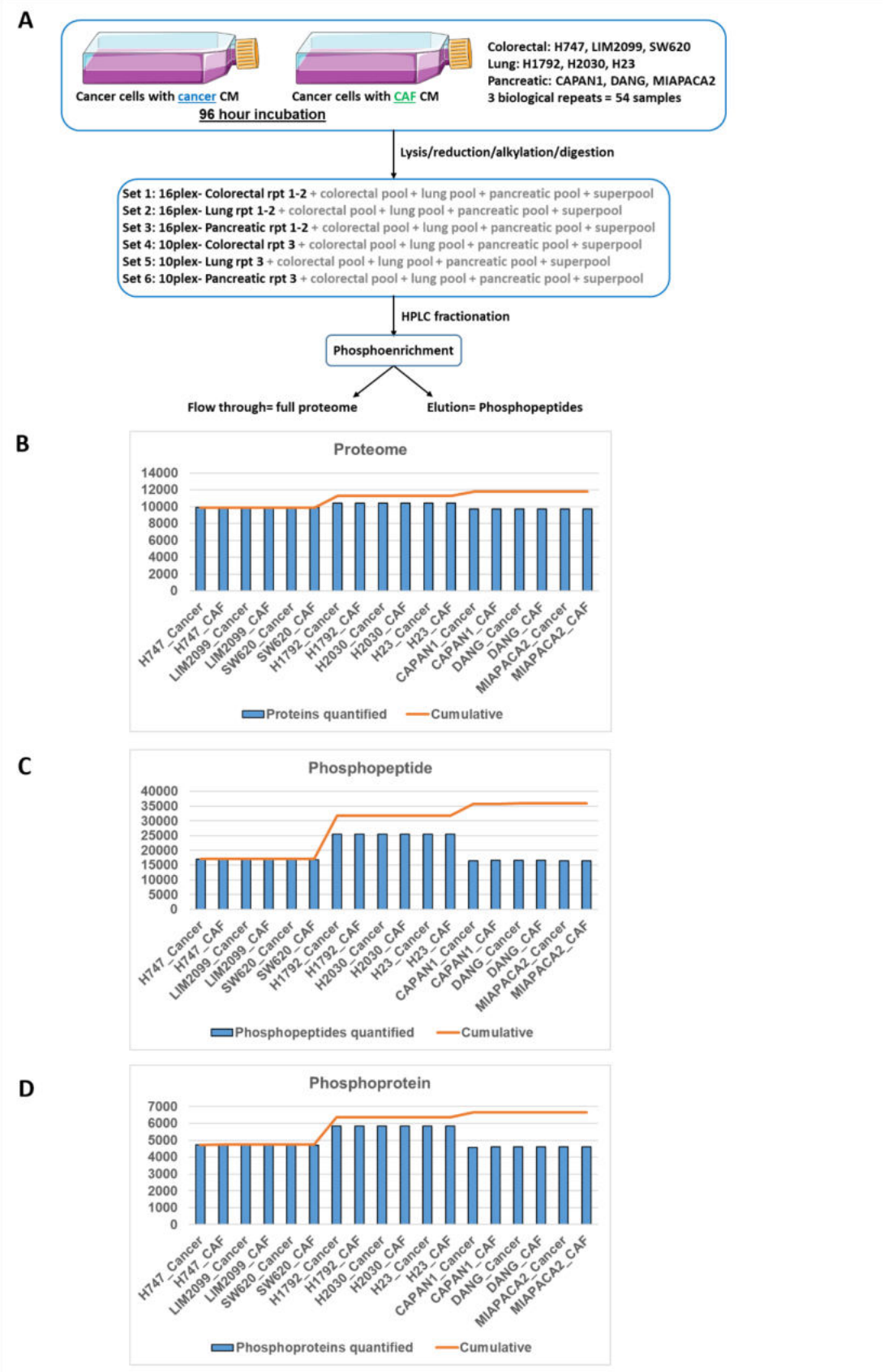
Figure 4.8 Basal state expression of TNF receptor superfamily member 10A (TNFRSF10A) and MET receptor Boxplot of protein expression of **(A)** TNFRSF10A and **(B)** MET receptor using our proteome dataset of 12 cell lines (3 CAF cell line models, 3 *KRAS* mutant-colorectal cancer, 3 *KRAS* mutant-lung cancer and 3 *KRAS* mutant-pancreatic cancer cell lines). PSC = pancreatic stellate cells. Green=Cancer-associated fibroblast, grey=colorectal cancer, purple=lung cancer, blue=pancreatic cancer

4.3.7 Study of the (phospho)proteome of *KRAS* mutant-cancer cells incubated in cancer or CAF CM to understand basal state changes in signal transduction

Cancer cells incubated in cancer or CAF CM were used to determine the effect of CAF-derived secreted proteins on signalling and the full proteome profile of *KRAS* mutant-cancer cells at the basal state level. The timeframe of the preparation and use of the CM was similar to that of the drug screen (Chapter 5) to make some comparisons as to how the CAF-derived ligands may impact the *KRAS* mutant-cancer cells at the basal state level and so drug response.

Therefore, the CM was produced from 48 hour incubations and the cancer cells were maintained in the appropriate CM for 96 hours before being harvested for (phospho)proteomic analysis using mass spectrometry. This analysis was a snapshot of any differential (phospho)proteome changes caused by CAF-derived proteins at the basal state level but it is acknowledged that this approach would miss information on early changes in signal transduction.

With each of the 9 cancer cell line exposed to either cancer or CAF CM in triplicates, 54 samples were analysed. The samples were multiplexed according to tissue type alongside pools containing all the CRC cell samples, all the NSCLC cell samples, all the PDAC samples or all the samples (known as the superpool). Therefore, samples from the first and second biological repeats were run as a 16plex alongside the pools whilst samples from the third biological repeat were run as a 10plex alongside the pools (Figure 4.9A). Phosphoenrichment was undertaken using affinity-based columns where the flow through was used for full proteome analysis whilst the eluted samples were used for phosphopeptide analysis. Phosphopeptide and protein abundance were normalised separately by the sample median abundance, $\log_2$ transformed and centred around zero by using the mean abundance of the 4 pools according to TMT batch. Between each of the biological repeats, there was high correlation in the protein abundance (0.79-0.97) and phosphopeptide abundance (0.62-0.93) where the median correlation was 0.89 and 0.81, respectively, demonstrating minimal variability with mass spectrometry analysis between biological repeats.


A
Cancer cells with cancer CM
Cancer cells with CAF CM
96 hour incubation
Colorectal: H747, LIM2099, SW620
Lung: H1792, H2030, H23
Pancreatic: CAPAN1, DANG, MIAPACA2
3 biological repeats = 54 samples
Lysis/reduction/alkylation/digestion
Set 1: 16plex- Colorectal rpt 1-2 + colorectal pool + lung pool + pancreatic pool + superpool
Set 2: 16plex- Lung rpt 1-2 + colorectal pool + lung pool + pancreatic pool + superpool
Set 3: 16plex- Pancreatic rpt 1-2 + colorectal pool + lung pool + pancreatic pool + superpool
Set 4: 10plex- Colorectal rpt 3 + colorectal pool + lung pool + pancreatic pool + superpool
Set 5: 10plex- Lung rpt 3 + colorectal pool + lung pool + pancreatic pool + superpool
Set 6: 10plex- Pancreatic rpt 3 + colorectal pool + lung pool + pancreatic pool + superpool
HPLC fractionation
Phosphoenrichment
Flow through= full proteome
Elution= Phosphopeptides
B
Proteome
Proteins quantified
Cumulative
C
Phosphopeptide
Phosphopeptides quantified
Cumulative
D
Phosphoprotein
Phosphoproteins quantified
Cumulative
H747_Cancer
H747_CAF
LIM2099_Cancer
LIM2099_CAF
SW620_Cancer
SW620_CAF
H1792_Cancer
H1792_CAF
H2030_Cancer
H2030_CAF
H23_Cancer
H23_CAF
CAPAN1_Cancer
CAPAN1_CAF
DANG_Cancer
DANG_CAF
MIAPACA2_Cancer
MIAPACA2_CAF

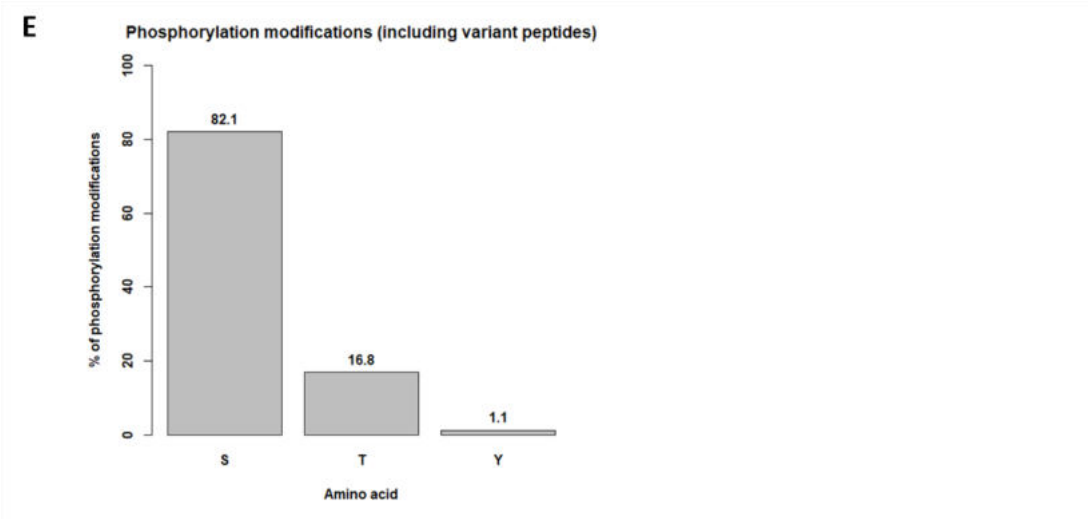
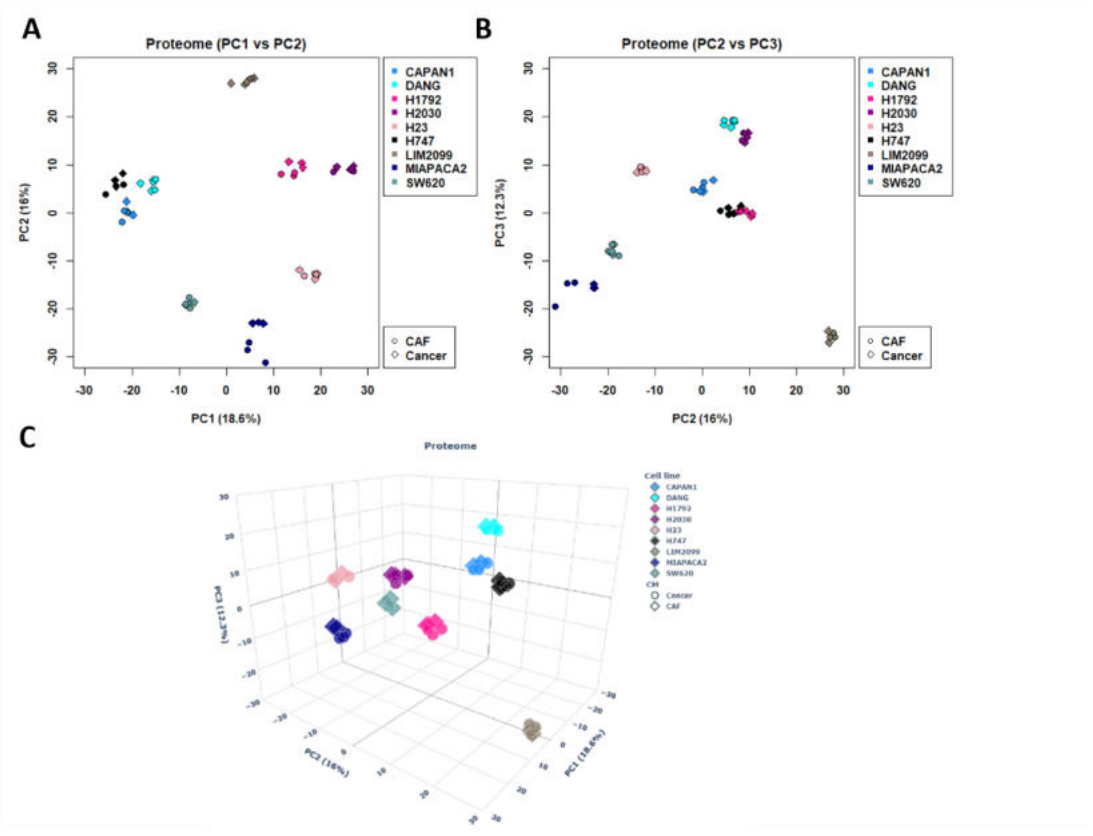


Figure 4.9 (Phospho)proteome of *KRAS* mutant-cancer cells incubated in cancer or cancer-associated fibroblast (CAF) conditioned media (CM) workflow (A) CM was produced from 48 hour incubations and the cancer cell lines were maintained in either cancer or CAF CM for 96 hours, which was undertaken in triplicates. The samples were multiplexed according to tissue types alongside pools grouped by colorectal cancer, lung cancer, pancreatic cancer or all samples (known as a superpool). Samples from the first and second biological repeats were run as a 16plex whilst samples from the third biological repeat were run as a 10plex. After reduction, alkylation, digestion and tandem mass tag (TMT) labelling, samples were fractionated by High Performance Liquid Chromatography (HPLC). From phosphoenrichment, the flow through was used for full proteome analysis and the eluted samples were used for phosphopeptide analysis. Cumulative plots of **(B)** the proteins from the full proteome, **(C)** phosphopeptides and **(D)** phosphoproteins from the (phospho)proteome analysis across the 18 cell line samples. **(E)** Barplot of percentage of phosphorylation modifications identified from the phosphopeptides. S = serine, T = threonine, Y = tyrosine.

From this analysis, 11781 proteins were quantified in total (of which 254 are variant proteins) where over 9700 proteins were quantified across all samples (Figure 4.9B). 35847 phosphopeptides were quantified in total (Figure 4.9C) from 6643 proteins including 106 variant proteins (Figure 4.9D). 82.1% of the phosphorylation modifications were on the serine residue whilst 16.8% of the phosphorylation modifications were on the threonine residues and the remaining 1.1% were on the tyrosine residue (Figure 4.9E). The ratio of the type of phosphorylation modifications reflects what is known in physiological conditions with phosphorylation on serine being the most abundant, followed by threonine and the rarest being on tyrosine (208).

4.3.8 The effect of CAF-derived secreted proteins on phosphorylation modifications and protein expression in *KRAS* mutant-cancer cells

Using the normalised data, PCA of both the full proteome (Figure 4.10A-C) and phosphoproteome (Figure 4.10D-F) profiles were undertaken and principal components (PC) 1, 2 and 3 were plotted to visualise any variation in the (phospho)proteome profile with CAF CM. However, there is no clear separation between the cells incubated in cancer or CAF CM at both the protein and phosphopeptide level because the samples tightly clustered by cell line and the clustering of the full proteome profile was similar to our basal state proteome analysis (Figure 3.1H). This suggests that the differences in the full proteome and phosphopeptide profiles across all the samples are overall modestly regulated by CM type at this time point and more strongly influenced by cell line type as opposed to the CM type.



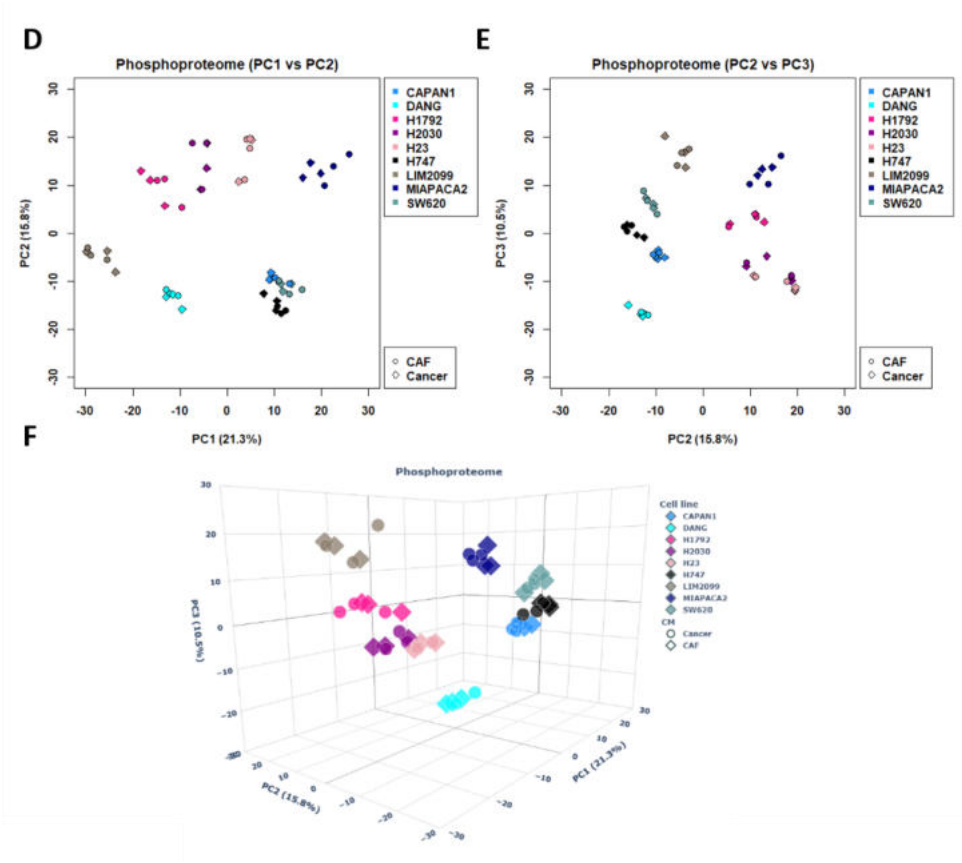


Figure 4.10 Differential (phospho)proteome profile of *KRAS* mutant-cancer cells incubated in cancer or cancer-associated fibroblast (CAF) conditioned media (CM) Principal component analysis (PCA) of the full proteome using **(A)** principal component (PC) 1 and 2, **(B)** PC 2 and 3 and **(C)** PC 1-3 combined. PCA of the phosphoproteome using **(D)** PC 1 and 2, **(E)** PC 2 and 3 and **(F)** PC 1-3 combined.

To assess any changes for each of the cell lines with the CAF CM compared to cancer CM, one-sample t-test was undertaken using the fold change between CAF CM and cancer CM (log_2(CAF CM/Cancer CM)). Table 4.2 summarises the number of changes at the phosphopeptide or protein levels ($p<0.05$) for each of the cell lines. Lung cancer H1792 had the most changes in phosphorylation modifications and protein expression, followed by pancreatic cancer CAPAN1 and MIAPACA2.

Cell line	Tissue type	Number of phosphopeptides changes	Number of protein changes
H1792	Lung	1604 (out of 25505=6.3%)	2454 (out of 10393=23.6%)
CAPAN1	Pancreatic	991 (out of 16644=6.0%)	1294 (out of 9708=13.3%)
MIAPACA2	Pancreatic	767 (out of 16666=4.6%)	1240 (out of 9708=12.8%)
DANG	Pancreatic	605 (out of 16615=3.6%)	559 (out of 9708=5.8%)
H747	Colorectal	632 (out of 17156=3.7%)	524 (out of 9899=5.3%)
LIM2099	Colorectal	494 (out of 17156=2.9%)	556 (out of 9897=5.6%)
SW620	Colorectal	552 (out of 17133=3.2%)	359 (out of 9899=3.6%)
H23	Lung	572 (out of 25506=2.2%)	411 (out of 10393=4.0%)
H2030	Lung	519 (out of 25508=2.0%)	390 (out of 10392=3.8%)

Table 4.2 Number of changes at the phosphopeptide or protein level with cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM at the basal state level One-sample t-test was undertaken using the fold change between CAF and cancer CM. The number of changes and % of changes relative to the total number of protein or phosphopeptide identifications per cell line are detailed ($p<0.05$) and the cell lines are ranked by % change of the proteome and phosphoproteome.

However, the majority of the phosphoproteome and full proteome changes identified for each of the 9 cell lines are relatively small (<2-fold). Lung cancer H1792 had the greater number of differential protein expression and phosphorylation modification changes with at least 2-fold (14 proteins and 44 phosphopeptides) (Appendix Table 5-6). All these significant changes were exclusive to H1792 which may highlight potential mechanisms at the basal state level for CAF-mediated drug responses that are unique to H1792. MIAPACA2 had the second largest number of differential protein expression and phosphorylation modifications with >2-fold (10 proteins and 36 phosphopeptides) (Appendix Table 7-8). This reflects the PCA where the extent of the differential full proteome and phosphopeptide profile between the two CM conditions appears to be small, except for perhaps H1792 and MIAPACA2 cell lines.

There were no significant universal identifications in the phosphopeptides and proteins which had differential expression ($p<0.05$) between the two CM types across all the 9 cell lines. Nor was there a universal difference in phosphopeptides and proteins with the two CM types for *KRAS*^{G12C} mutant-cell lines. Therefore, CAFs may affect signalling differently in each of the *KRAS* mutant-cancer cell lines, corroborating the observations made by informatic analysis of the basal state proteome and secretome using the FANTOM5 interaction database (section 4.3.6).

4.3.9 Understanding the effect of CAF-derived secreted proteins on lung cancer H1792 cells and pancreatic cancer MIAPACA2 cells

Functional assessment of the proteome and phosphoproteome changes were undertaken by applying the significant differentially regulated phosphopeptides and proteins ($p<0.05$) for kinase enrichment prediction by PhosFate (138), transcription factor enrichment by EnrichR (139) and 1D functional enrichment analysis using GOBP and KEGG annotations. Due to a small number of changes with CAF CM compared to cancer CM in the 9 cancer cell lines, it is difficult to infer the universal impact of CAF CM on cell physiology and this is clear by the lack of GOBP and KEGG enrichment for all the cell lines except for lung cancer H1792 and pancreatic cancer MIAPACA2 and so the analysis will focus on these two cell lines.

Lung cancer H1792 cells

Table 4.3 and 4.4 outlines the statistics of the key protein and phosphopeptide changes, respectively, in H1792 cells with CAF CM compared to cancer CM that are described in the text below.

Gene name	Log2(CAF/Cancer)	P value
ALDOC	-0.40	0.008
ASS1	-0.43	0.012
ENO2	-0.59	0.003
FEN1	0.13	0.033
HMGCL	-0.48	0.003
IDH2	-0.51	0.015
LIG1	0.18	0.010
MCM3	0.17	0.031
MCM4	0.20	0.026
MCM6	0.23	0.001
MCM7	0.16	0.017
MYC	0.38	0.006
ORC1	0.12	0.034
ORC2	0.15	0.014
ORC3	0.21	0.006
ORC4	0.20	0.004
ORC5	0.18	0.030
PC	-0.42	0.004
PCNA	0.12	0.031
PDHA1	-0.21	0.012
PGK1	-0.25	0.011
POLB	0.20	0.005
POLE	0.21	0.004
POLE2	0.33	0.015
POLE3	0.20	0.010
POLE4	0.29	0.017
RPL10	0.11	0.024
RPL10A	0.15	0.026
RPL12	0.16	0.008
RPL15	0.20	0.019
RPL17	0.14	0.006
RPL18	0.17	0.004
RPL18A	0.22	0.033
RPL21	0.14	0.043
RPL24	0.18	0.044
RPL28	0.22	0.011
RPL3	0.14	0.015
RPL32	0.21	0.019
RPL35	0.21	0.043
RPL36	0.11	0.013
RPL36A	0.32	0.004
RPL37	0.27	0.033
RPL4	0.16	0.025
RPL5	0.16	0.021
RPL6	0.14	0.034
RPL7	0.20	0.004
RPS15	0.24	0.044
RPS15A	0.16	0.040
RPS16	0.12	0.007
RPS18	0.15	0.006
RPS2	0.20	0.014
RPS21	0.11	0.030
RPS23	0.17	0.032
RPS25	0.23	0.004
RPS26	0.14	0.021
RPS29	0.16	0.015
RPS4X	0.17	0.025
RPS5	0.22	0.027
RPS6	0.17	0.043
RPS8	0.13	0.015
RPS9	0.19	0.009
RPSA	0.09	0.035
SIRT3	-0.32	0.007
SUCLG2	-0.32	0.001
TSR3	0.42	0.045
UTP15	0.19	0.004

Table 4.3 Statistics on the protein changes in lung cancer H1792 cells with cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM at the basal state level One-sample t-test was undertaken using the fold change between CAF and cancer CM and key changes ($p<0.05$) that are discussed in the main text are detailed here. Proteins highlighted in yellow are ribosomal subunits.

Phosphopeptide	Log2(CAF/Cancer)	P value
4EBP1 S65;T70	-0.34	0.032
cJUN S73	0.24	0.028
JUND S100	0.24	0.028
PRKCE T710	-1.19	0.019
RB S795	0.42	0.050
RB T252	0.45	0.009
RB T356	0.30	0.014
RB T373	0.24	0.011
RICTOR T1135	-0.80	0.002

Table 4.4 Statistics on the phosphopeptide changes in lung cancer H1792 cells with cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM at the basal state level One-sample t-test was undertaken using the fold change between CAF and cancer CM and key changes ($p<0.05$) that are discussed in the main text are detailed here.

From the 1D functional enrichment analysis, there was an upregulation of proteins associated with the annotations related to DNA replication/repair and ribosome biogenesis in H1792 with CAF CM compared to cancer CM. All 4 DNA polymerase epsilon subunits, which are known to mediate both DNA replication and nucleotide/base excision repair (209), were upregulated with CAF CM. Also, some components of the origin recognition complex and minichromosome maintenance complex, which are required for DNA replication initiation, had a slight increase in expression with CAF CM. The upregulation of proteins associated with DNA replication/repair coincides with the enrichment of cell cycle transcription factors E2F1/4, MYC and MAX gene targets by EnrichR (220, 194, 445 and 564 proteins out of 2454 significant differentially expressed proteins, respectively. Adjusted p values ≤ 2 $x10^{-27}$). Also, MYC expression itself increased with CAF CM in H1792. In line with the potential upregulation of cell cycle activity, there was also an increase in retinoblastoma-associated protein (RB) phosphorylation (T252/356/373/795) with CAF CM in H1792, which are all phosphosite targets for CDKs (210, 211) and CDK1/4 were one of the highest upregulated kinases predicted by kinase enrichment (p values= 0.028 and 0.035, respectively). T795 phosphorylation occurs in the carboxyl terminal domain of RB, which reduces its inhibitory action on E2F transcription factor in the cell cycle (212) and so further reaffirms the predicted enrichment of E2F target genes by EnrichR.

For the enrichment of ribosome biogenesis annnotations, there was an upregulation of large 60S subunit and small 40S subunit proteins where RPL36A is the most upregulated. rRNA is also one of the main components of ribosomes and proteins responsible in modifying rRNA were upregulated with

CAF CM, including 18S rRNA aminocarboxypropyltransferase (TSR3) and U3 small nucleolar RNA-associated protein 15 homolog (UTP15). Perhaps profiling the RNA in arrested ribosomes (ribo-seq) of H1792 with CAF or cancer CM would reveal whether the upregulation of ribosomal protein subunits correspond to increased translational activity with CAF CM. Currently, there is no basal state ribo-seq data for H1792.

On the other hand, 1D functional enrichment analysis also highlighted the downregulation of proteins associated with annotations related to metabolic processes, including respiration and amino acids, in H1792 with CAF CM compared to cancer CM. This corresponds with the decrease in the expression of enzymes involved in glycolysis, pyruvate metabolism and Krebs cycle, such as enolase 2 (ENO2), pyruvate carboxylase (PC), isocitrate dehydrogenase 2 (IDH2), respectively.

For the downregulation of amino acid metabolism annotations, these included arginine and branched amino acid metabolic enzymes, such as argininosuccinate synthase 1 (ASS1) and hydroxymethylglutaryl-CoA lyase (HMGCL), respectively. Interestingly, the downregulation of metabolic processes in H1792 with CAF CM also coincided with the decrease in sirtuin 3 (SIRT3) expression, which is a critical cell metabolism regulator due to its nicotinamide adenine dinucleotide (NAD+) dependent deacetylase activity (213), but the other SIRT family members, which also regulate cell metabolism, were not significantly downregulated in H1792 with CAF CM.

Of the pathways downstream of KRAS, cJUN N-terminal kinase (JNK) effectors, cJUN and JUND, had increased phosphorylation at S73 and S100,

respectively, in H1792 with CAF CM compared to cancer CM. JNK signalling regulates cell proliferation so it could be a potential pathway behind the increased cell cycle activity but JNK is also involved in apoptosis (214) and there are various other known pathways that affect cell cycle progression.

The AKT pathway also acts downstream of KRAS (215) but the phosphorylation of AKT and MTOR substrates decreased with CAF CM in H1792, which coincides with kinase enrichment analysis which predicted that AKT and MTOR were the most downregulated kinases in H1792 with CAF CM compared to cancer CM (p values= 0.008 and 0.031, respectively). For instance, protein kinase C epsilon type (PRKCE) T710 phosphorylation, a target of MTOR (216), decreased by 2.3 fold in H1792 with CAF CM compared to cancer CM. Also, there was decreased phosphorylation in Rapamycin-insensitive companion of mTOR (RICTOR) and eukaryotic translation initiation factor 4E (4EBP1), which are AKT and MTOR targets, respectively (217, 218).

Collectively, H1792 with CAF CM compared to cancer CM promoted an increase in protein expression and phosphorylation changes associated with DNA replication and ribosome biogenesis but there was a downregulation in AKT pathway phosphorylation and expression of proteins associated with respiration and amino acid metabolism. This is summarised as a schematic diagram in Figure 4.11.

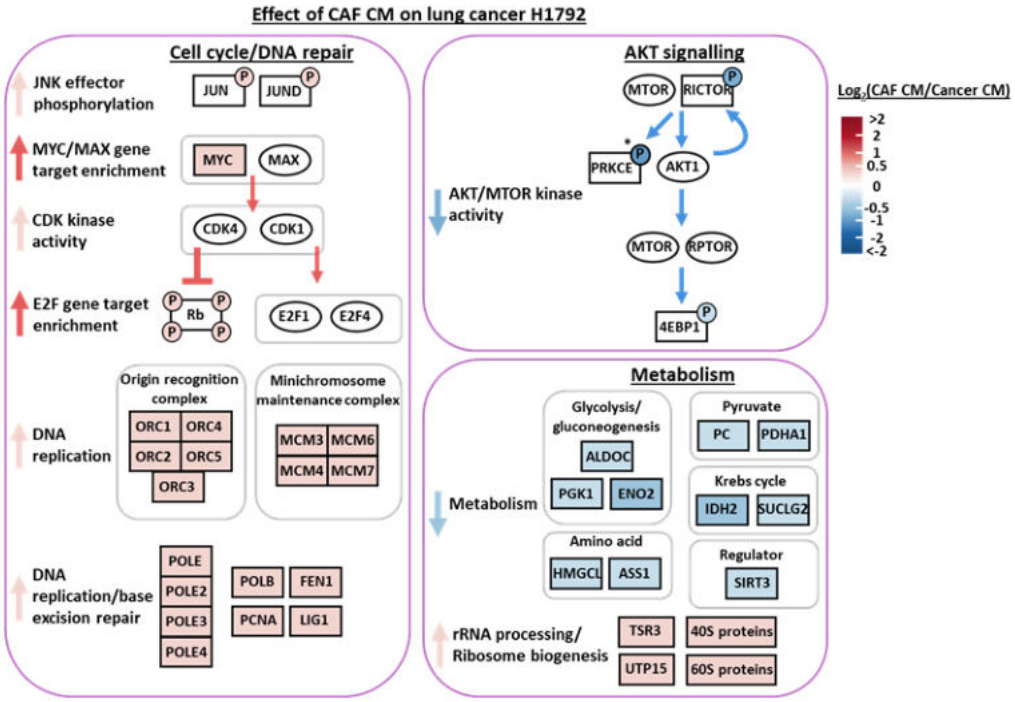


Figure 4.11 The effect of cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM in lung cancer H1792 cells A schematic diagram summarising the impact of CAF CM on H1792 cells. Colours represent log_2 fold change between CAF CM and cancer CM where red= upregulation, blue = downregulation. The proteins in oval shapes are kinases or transcription factors that were highlighted from enrichment analysis but had no significant changes in its own protein expression. * indicates the change is >2-fold (log_2(CAF CM/Cancer CM)>1).

Pancreatic cancer MIAPACA2 cells

Table 4.5 and 4.6 outlines the statistics of the key protein and phosphopeptide changes, respectively, in MIAPACA2 cells with CAF CM compared to cancer CM that are detailed in the text below. Similar to lung cancer H1792 cells, there was the significant decrease in AKT phosphosite targets in MIAPACA2 with CAF CM alongside the downregulation of ribosomal protein S6 kinase β1 (RPS6KB1) substrate phosphorylation, which is a downstream pathway component of AKT (215). For instance, forkhead box protein O3 (FOXO3) S253 and yes-associated protein 1 (YAP1) S127 are targets of AKT (219, 220) that were downregulated with CAF CM compared to cancer CM whereas RPS6 S236/S240 is a target of RPS6KB1 (221) that significantly decreased with CAF CM compared to cancer CM. The downregulation of these

phosphosites correspond to AKT and RPS6KB1 being the most downregulated kinases predicted by kinase enrichment (p values= 0.002 and 0.001, respectively).

AKT is also known to phosphorylate and inhibit glycogen synthase kinase 3β (GSK3B) and transcription factor RELB S573 phosphorylation, a target of GSK3B (222), was one of the most upregulated phosphopeptides with CAF CM in MIAPACA2. This reflects GSK3B kinase activity being predicted the most upregulated kinase with CAF CM (p value=0.001). RELB phosphorylation by GSK3B is associated with protein degradation and decreased signalling of nuclear factor κB (NFKB) but RELB protein expression was not significantly affected by CAF CM at this specific timepoint. It should be noted that there is no consensus dataset on RELB target genes detailed in EnrichR so it was not highlighted in the transcription factor enrichment analysis.

Gene name	Log2(CAF/ Cancer)	P value
JUNB	0.82	0.002
TFB1M	0.43	0.034
TFB2M	0.48	0.027

Table 4.5 Statistics on the protein changes in pancreatic cancer MIAPACA2 cells with cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM at the basal state level One-sample t-test was undertaken using the fold change between CAF and cancer CM and key changes ($p<0.05$) that are discussed in the main text are detailed here.

Phosphopeptide	Log2(CAF/ Cancer)	P value
FOXO3 S253	-0.52	0.04
RELB S573	1.40	0.02
RPS6 S236;S240	-1.21	0.01
YAP1 S127;T/S	-1.33	0.02

Table 4.6 Statistics on the phosphopeptide changes in pancreatic cancer MIAPACA2 cells with cancer-associated fibroblast (CAF) conditioned media (CM) compared to

cancer CM at the basal state level One-sample t-test was undertaken using the fold change between CAF and cancer CM and key changes ($p<0.05$) that are discussed in the main text are detailed here.

Unlike lung cancer H1792 cells, MIAPACA2 did not have significant changes with JUND or cJUN phosphorylation but there was increased JUNB protein expression with CAF CM compared to cancer CM. JUNB is known to interact with various transcription factors, including nuclear respiratory factor 1/2 (NRF1/2) (223). NRF1 was one of the transcription factors predicted to have gene set enrichment by EnrichR (209 proteins out of 1240 differentially expressed proteins, adjusted p value = $4.6x10^{-17}$). Dimethyladenosine transferase 1/2 (TFB1M/TFB2M) are targets of NRF1 and the expression of these proteins increased with CAF CM in MIAPACA2. TFB1M and TFB2M are involved in processing mitochondrial rRNA and so relates to the enrichment of rRNA and ribosome annotations. However, there was no significant change in ribosomal subunit protein expression with CAF CM in MIAPACA2 so the upregulation of ribosomal biogenesis annotations is driven more by the rRNA processes. Northern blotting can be used to quantify the extent of rRNA processing in MIAPACA2 with CAF CM compared to cancer CM by assessing the levels of pre-rRNA transcripts and its intermediates. Similarly to H1792, there is no basal state ribo-seq data for MIAPACA2 but ribo-seq of MIAPACA2 with the two CM types would determine the impact of CAF CM on translation activity if rRNA processing was validated to be upregulated with CAF CM.

Therefore, MIAPACA2 with CAF CM compared to cancer CM had decreased phosphorylation of AKT pathway substrates but potential increase in NFKB signalling and rRNA processing. This is summarised as a schematic diagram in Figure 4.12.

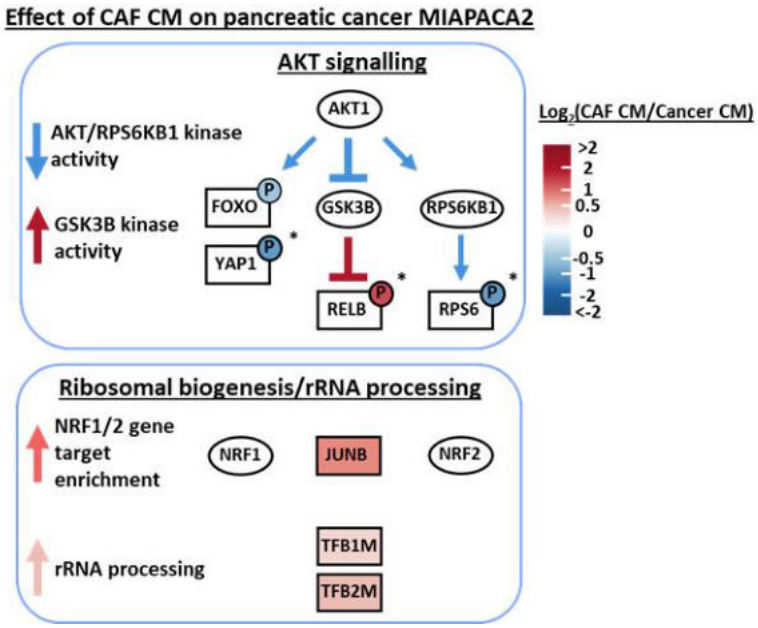


Figure 4.12 The effect of cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM in pancreatic cancer MIAPACA2 cells A schematic diagram summarising the impact of CAF CM on MIAPACA2 cells. Colours represent log_2 fold change between CAF CM and cancer CM where red= upregulation, blue = downregulation. The proteins in oval shapes are kinases or transcription factors that were highlighted from enrichment analysis but had no significant changes in its own protein expression. * indicates the change is >2-fold (log_2(CAF CM/Cancer CM)>1).

4.4 Discussion

4.4.1 Basal state secretome analysis

Analysing the proteins secreted by a cell population provides invaluable information on how different cell types interact with each other and in the context of cancer, how the disease progresses and may respond to treatment. The use of mass spectrometry for secretome analysis is a double edge sword as it offers an unbiased search for the secreted proteins but there are challenges in preparing the sample for analysis given that the secreted proteins are of low abundance relative to serum proteins in typical cell culture media or plasma samples.

Our secretome analysis of the CAF cell line models and *KRAS* mutant-cancer cell lines used serum-free media which has been exposed to the cell line for 24 hours and proteins were extracted using TCA precipitation. 5739 proteins

were quantified in total of which 2573 proteins were reliably annotated to be S/TM proteins between the biological repeats. Although the use of prediction software and databases still biased the secretome analysis to an extent as the software and databases were built on existing knowledge, it is unlikely that the unannotated proteins in the secretome analysis are due to comprised plasma membrane integrity as there was a lack of LDH in the serum free CM samples.

The CAF-enriched proteins identified represent potential factors that influence signalling and/or drug response in *KRAS* mutant-cancer cells. For instance, the CAF CM samples were characterised to have high abundance of ECM components, including collagens, which are known to impede drug delivery to cancer cells and promote drug resistance (79, 80). Also, ECM components interact with integrins, which activate focal adhesion kinase (FAK) signalling (224). Furthermore, some of the CAF-enriched proteins from our secretome analysis are known CAF markers or have been associated to be upregulated in CAFs, such as DCN, FSTL1 and SDC2 (150, 161, 198). However, the role of these proteins in the context of CAFs has not been extensively studied but it is known that in other experimental cell line models, DCN inhibits MET (207) and FSTL1 antagonises bone marrow morphogenic protein 4 (BMP4) (225) whereas SDC2 is a proteoglycan which can interact with the ECM and growth factors, such as TGFB, and act as a co-receptor to facilitate cell proliferation and migration (226).

WNT5B was revealed to be highly abundant in the CAF CM compared to cancer CM but WNT5B is comparatively understudied in the context of the tumour microenvironment compared to its paralog WNT5A, which is known to be highly secreted by stromal cells, including CAFs (202). It is possible that

CAF-derived WNT5B may have similar effects as WNT5A since the two proteins have high sequence homology (80%) (227). For instance, WNT5A regulates ABC transporters (228) and so CAF-derived WNT5B may promote chemotherapy resistance by promoting drug efflux through increasing transporter protein expression. However, WNT5B may also have unique biological roles because emerging studies have proposed that WNT5B has a distinct expression profile and function in mouse development and cell differentiation (229-232).

On the other hand, LPPR5 was identified as a protein that is lowly secreted by CAFs compared to the *KRAS* mutant-cancer cells. The role of LPPR5 in cancer is not well explored but it is thought to decrease cell growth and enhance cell invasion and anti-angiogenic drug (sunitinib) resistance in glioma cells (233).

CKS1B was also identified to be lowly secreted by CAFs compared to *KRAS* mutant-cancer cells. Although annotated as being localised in the nucleoplasm in uniprot, CKS1B is defined by vesiclepedia as being identified in extracellular vesicles where CRC SW620 was one of cell line models studied (234) and is a cell line on my panel. The functional role of exosome derived CKS1B has not been defined but CKS1B overexpression has been associated with resistance to proteasome inhibitor bortezomib (235).

These differentially expressed CAF secreted proteins could be potentially validated by exposing the cells with serum deprivation in the last 2 hours of different time periods, which highlights the secreted protein temporal dynamics in a longer timeframe with minimal cell damage (236). Alternatively, biotin

ligase expressed in the endoplasmic reticulum of CAFs in mice can be used to label the secreted proteins that are released into the blood plasma, which could put the CAF secretome in a more physiological setting (237), but choosing an appropriate CAF marker would be one limiting factor to this approach.

4.4.2 Basal state (phospho)proteome analysis

The identification of receptors in *KRAS* mutant-cancer cells from our basal state proteome (Chapter 3) can be associated with the CAF-enriched ligands, which provides initial insight into potential CAF and cancer cell cross-talk. This was demonstrated with datamining FANTOM5 interaction database where it was hypothesised that CAFs may affect global signalling differently in each of the *KRAS* mutant-cancer cell lines and indeed, with 96 hour incubation of the CAF CM, there were no significant universal changes in the (phospho)proteome across all 9 cancer cell lines. Therefore, with the varied impact of CAF CM on the (phospho)proteome of *KRAS* mutant-cancer cells, it highlights that there will potentially be different CAF CM mediated drug response across all 9 cancer cell lines, which was reaffirmed in chapter 5.

With lung cancer H1792 and pancreatic cancer MIAPACA2 having a larger number and magnitude of changes in the (phospho)proteome compared to the other cell lines, functional enrichment analysis allowed the inference of the impact of CAF CM on these cell lines. The mean abundance of receptors in H1792 and MIAPACA2 from our basal state proteome analysis did not differ significantly from the other 7 cancer cell lines so differential receptor expression is not responsible for the greater response to CAF CM in H1792 and MIAPACA2.

For both H1792 and MIAPACA2, there was a lack of detection or significant changes in phosphorylation of the ERK pathway components, which act downstream of KRAS. Instead, some AKT pathway effectors were identified where decreased AKT signalling was observed with CAF CM compared to cancer CM and the downregulation of AKT signalling could be further validated using western blotting and assessing mRNA levels of AKT target genes. Since IGFBP5/7 have been identified as CAF-enriched secreted proteins compared to cancer cells, it is possible that these factors could be impeding the action of AKT pathway activating ligands at this timepoint of 96 hours incubation with CAF CM.

Further validation on the impact of CAFs on AKT signalling at different timepoints besides 96 hours incubation in the CM would also be useful to understand the signalling dynamics because Tape *et al* identified the upregulation of the AKT pathway in *KRAS* mutant-pancreatic cancer cells after 5 days of co-culture with PSC due to its IGF1 expression (136). Also, another study from Tape's lab demonstrated that fibroblasts and macrophages upregulated both MAPK and PI3K signalling in CRC organoids with *APC* deletion and *KRAS* mutation after 48 hours in co-culture (137). Nonetheless, IGF1 was identified to be highly expressed in PSC compared to the pancreatic cancer cell lines from our basal state secretome analysis but IGF1 was not highly expressed in colorectal or lung CAFs compared to all the respective cancer cell lines.

For H1792, there was also the downregulation of metabolic proteins but both H1792 and MIAPACA2 had increased expression of proteins associated with ribosomal biogenesis. The decreased expression in metabolic proteins in

H1792 may be due to a shift in metabolic processes caused by the CAF CM, such as a lower demand of the metabolites, including amino acids, which may be enriched in the CAF CM compared to the cancer CM. Metabolomics of the cells and metabolite profiling of the CM could elucidate as to whether there is differential metabolic activity between the CAFs and cancer cell lines, which may link with the downregulation of metabolic annotations in lung cancer H1792 cells from our (phospho)proteome analysis.

H1792 with CAF CM also had the upregulation of DNA replication/repair proteins corresponding with the enrichment of transcription factors involved in the cell cycle (MYC, MAX and E2F1/4). This suggests that certain signalling pathways may be upregulated in response to CAF CM to promote cell proliferation in H1792. This may include the JNK pathway, which acts downstream of KRAS, because its effectors, cJUN and JUND, were identified to have increased phosphorylation. Cancers dependent on mutated KRAS are thought to be driven by CDK signalling and sensitise to CDK inhibitors (238) and so CAF CM may further sensitise H1792 to inhibitors which target these specific CAF CM mediated signalling pathways critical in driving cell cycle. The effects of CAFs on H1792 in cell cycle could be validated using flow cytometry but the use of cell viability assays and Incucyte demonstrated no apparent difference in cell growth or morphology with CAF CM compared to cancer CM in Chapter 5 section 3.1. Although our (phospho)proteome analysis highlighted signalling changes with CAF CM in H1792 and MIAPACA2, a deeper insight into the phosphoproteome changes could be obtained through phosphorylated tyrosine enrichment. This is because tyrosine phosphorylation only represent a very small fraction of phosphorylation modifications and it is

a critical modification in determining signal transduction activity but changes in tyrosine phosphorylation are likely to be detected in very early timepoints as opposed to longer timepoints because tyrosine phosphorylation is short-lived (239).

Collectively, the secretome analysis highlighted CAF-enriched secreted proteins in different tissue types, which may be potential mediators of drug resistance and cancer progression in *KRAS* mutant-cancers and could be potential targets to prevent these pro-tumour functions. Although a static snapshot, the impact of the CAF-derived secreted protein on the basal state (phospho)proteome of the *KRAS* mutant-cancers from different tissue types demonstrates the complexities in categorising these interactions, which may not be only dependent on *KRAS* mutational status. It was noted that these observed global changes may not necessarily be due to only proteins secreted by the cells but could also be due to other secreted small molecules, including metabolites and microRNAs. Nonetheless, our basal state analysis of the CAF secreted proteins and its effect on the (phospho)proteome analysis on the 9 *KRAS* mutant-cancer cell lines provides a foundation to inform us on potential mechanisms by which CAFs affect drug response in *KRAS* mutant-cancer cell lines (Chapter 5) and its mechanism of action (Chapter 6).

Chapter 5 Investigating the influence of cancer-associated fibroblast (CAF)-derived secreted proteins on drug response in *KRAS* mutant-cancer cells

5.1 Introduction

KRAS is a validated oncogene which drives multiple cancer hallmarks, such as sustained cell proliferation and survival, due to continual activation of downstream signal transduction (240, 241). KRAS has been long considered to be difficult to drug but there is now significant progress with *KRAS*^{G12C}-specific inhibitors being approved for *KRAS*^{G12C} mutant-NSCLC patients (16, 45). As *KRAS*^{G12C} mutations are rare outside NSCLC, the majority of *KRAS* mutant-cancers are conventionally treated using chemotherapy or other targeted therapies where the efficacy is often limited and met with subsequent resistance (242-244). One of the well-established drug resistance mechanisms in cancer cells include signal network adaptations. However, feedback loops and alternative signalling pathways does not completely explain how alterations in the signalling network mediate drug resistance. This is particularly because signalling is mediated by a heterogeneous population of cells and cancer cells respond to factors secreted by the tumour microenvironment. Moreover, external stimuli are thought to be critical in prolonging the activity of mutated KRAS (64-66). Therefore, stromal cells may influence signalling changes within *KRAS* mutant-cancer cells in response to treatment or affect the *KRAS* mutant-cancer signalling network to promote innate drug resistance or sensitivity. Understanding the mechanisms on how the stroma interacts with *KRAS* mutant-cancers from different tissue types may highlight potential therapeutic strategies to overcome drug resistance.

Many drug resistance mechanistic studies in cancer cells using stromal cells are based on single hypotheses or lack an extensive drug screen panel or unbiased analysis of the secreted proteins, known as the secretome. Although

most drug resistance studies using stromal cells focus on a single specific drug, McMillin *et al* and Straussman *et al* investigated various drugs in multiple cell lines using co-culture models (92, 93). McMillin *et al* initially assessed the response of bortezomib, dexamethasone and doxorubicin 48 hours post-treatment in 4 luciferase expressing multiple myeloma cell lines with or without HS-5 bone marrow stem cells. Doxorubicin resistance with HS-5 was observed but they only focused on IL-6 as a known stromal cytokine without comparing the secretome between the two cell types, which excludes the assessment of other potential mechanisms. McMillin *et al* also stated the feasibility of high-throughput investigation of over 3000 drugs using their co-culture model but they only highlighted that reversine sensitisation in the presence of HS-5 as the main active hit.

On the other hand, Straussman *et al* investigated the response of 35 drugs at a longer timepoint than McMillin *et al* (6 days after treatment) in 45 GFP labelled cancer cell lines with or without a panel of 23 stromal cells. This included dermal fibroblasts, breast CAFs and lung CAFs, but not all combinations of drugs with cancer and stromal cell pairings were assessed. Straussman *et al* focused on BRAF inhibitor resistance in melanoma and unlike McMillin *et al*, they used antibody arrays to characterise the ligands in the CM and targeted their pathway analysis by probing only the AKT and ERK pathway to put the stroma mediated BRAF inhibitor resistance into context. Nonetheless, it is possible that other pathways may cross-talk and facilitate BRAF inhibitor resistance mediated by the stroma.

Although McMillin *et al* revealed stroma-derived IL-6 promotes doxorubicin resistance in myeloma cells whereas Straussman *et al* found stroma-derived

HGF facilitates BRAF inhibitor resistance in melanoma cells, neither of these studies incorporated mass spectrometry-based proteomics which may provide a global overview to further their understanding on the influence of the stroma on drug response. Here, we are specifically focusing on the influence of secreted proteins from CAFs where the CAF cell line models correspond with the appropriate tissue types of our *KRAS* mutant-cancer cell lines (colorectal, lung and pancreatic). CM and a bespoke drug screen panel of 97 clinically relevant anti-cancer drugs were used to determine whether CAF-derived secreted proteins cause a differential drug response in *KRAS* mutant-cancer cell lines compared to cancer-derived secreted proteins. This was undertaken alongside the unbiased secretome analysis of the CM using mass spectrometry (Chapter 4) and consequently, the characterisation of the (phospho)proteome of the cells treated with our drug hits using mass spectrometry and antibody-bead based assays (Luminex), which offers both global and targeted analysis, respectively (Chapter 6). Therefore, the combination of a wide drug screen panel and unbiased secretome and (phospho)proteome analysis is a novel aspect to research on stroma mediated drug resistance and it drives our understanding on potential CAF-mediated drug response in *KRAS* mutant-cancer cells as opposed to single hypothesis driven investigations in most studies using stromal cells where they focus on a particular drug or specific ligand of interest.

5.2 Aims

Our basal state secretome analysis of our CAF and cancer cell lines highlighted CAF-enriched secreted proteins and (phospho)proteome analysis of the cancer cell lines exposed to CAF CM illustrated how CAF-derived

secreted proteins affect signalling and the full proteome, which may impact drug response in *KRAS* mutant-cancers (Chapter 4).

Therefore, the aims were:

- To determine the effect of CAF CM on *KRAS* mutant-cancer cell growth and DMSO tolerability
- To identify the drugs that have a differential response in *KRAS* mutant-cancer cells when exposed to CAF-derived secreted proteins in the CM using a bespoke panel of 97 anti-cancer drugs

5.3 Results

5.3.1 Characterising the effect of CAF CM on *KRAS* mutant-cancer cell growth

To optimise the CM for the drug screens, CM was obtained from the CAF and cancer cell lines after 24 and 48 hour incubations as two timepoints commonly used in studies (91, 95, 245). The growth of the cancer cells in cancer or CAF CM was compared with DMEM-F12 media over a 96 hour timeframe, which is the duration of the drug screen from seeding the cells to the endpoint viability assay (Figure 5.1). Both cell confluence (Figure 5.2A-I) and viability (Figure 5.3A-I) were measured to assess cell growth. No cell morphology changes with CM type were observed that may impact cell confluency measurements.

For most cell lines, the cell growth did not seem to have a significant change with the type of CM (CAF vs cancer) and the length of incubation time that the CM were generated for (24 vs 48 hours). Nevertheless, it seems that for MIAPACA2 that cancer CM which has been produced after 48 hour incubations caused slower cell growth in MIAPACA2 compared to CAF CM which has been produced after 48 hour incubations (Figure 5.2I and 5.3I).

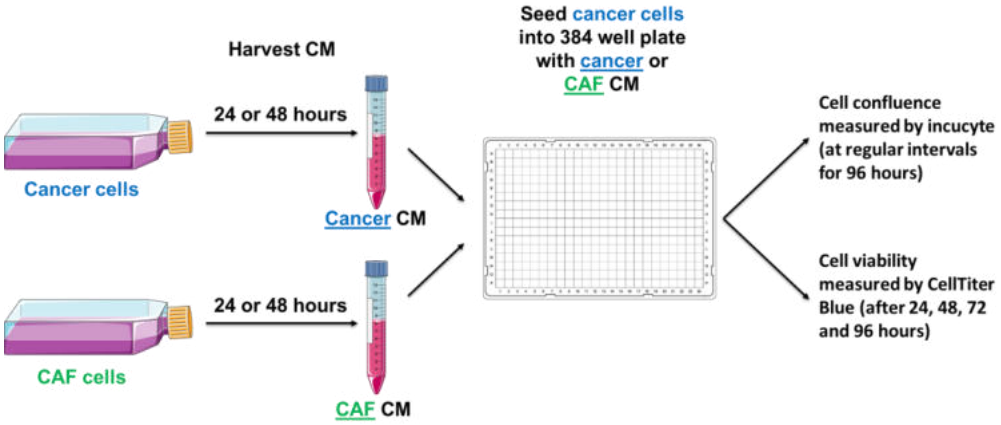
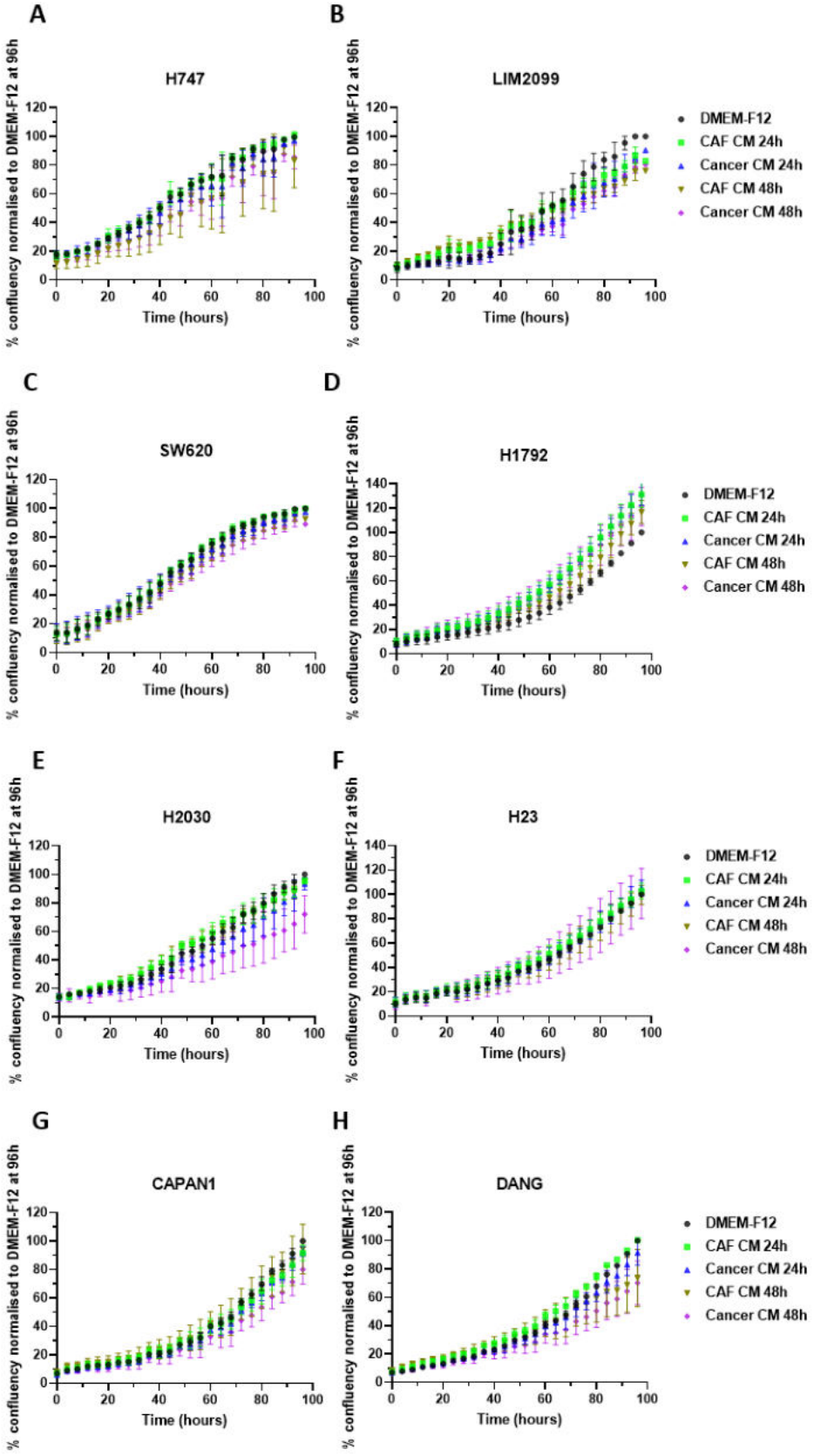


Figure 5.1 Workflow in characterising the effect of cancer-associated fibroblast (CAF) and cancer conditioned media (CM) on *KRAS* mutant-cancer cell growth CM was harvested from CAFs or cancer cells after 24 or 48 hours incubation. These two CM conditions were used to seed cancer cells into 384 well plates where the growth of the cancer cells was compared to DMEM-F12 media alone over a 96 hour timeframe by measuring cell confluence using Incucyte or by measuring cell viability using CellTiter-Blue at regular intervals.

Since there is no apparent difference in cell growth from these measurements between CM produced after 24 or 48 hour incubations with the exception of MIAPACA2, CM were generated after 48 hours incubation for our experiments henceforth because within this timeframe, one or two doublings would occur that will allow for the capture of secreted proteins at exponential phase and maximises the enrichment of secreted protein compared to a shorter timeframe. Although Straussman *et al* used a longer incubation of 72 hours for their CM experiments (93), too long of an incubation would result in a depletion of nutrients and the cells would likely reach stationary phase at the end of a longer timepoint, which may be one of the reasons as to why they diluted the CM with fresh media.


A
H747
B
LIM2099
C
SW620
D
H1792
E
H2030
F
H23
G
CAPAN1
H
DANG
% confluency normalised to DMEM-F12 at 96h
Time (hours)
DMEM-F12
CAF CM 24h
Cancer CM 24h
CAF CM 48h
Cancer CM 48h

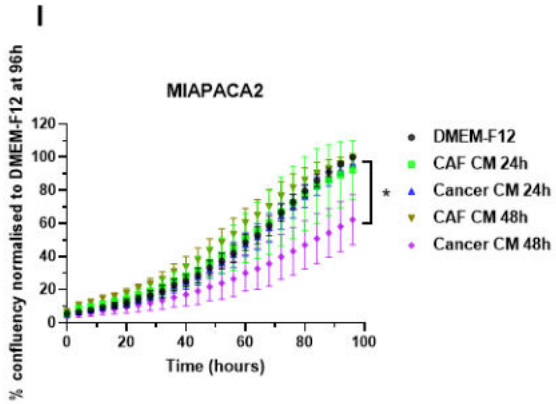
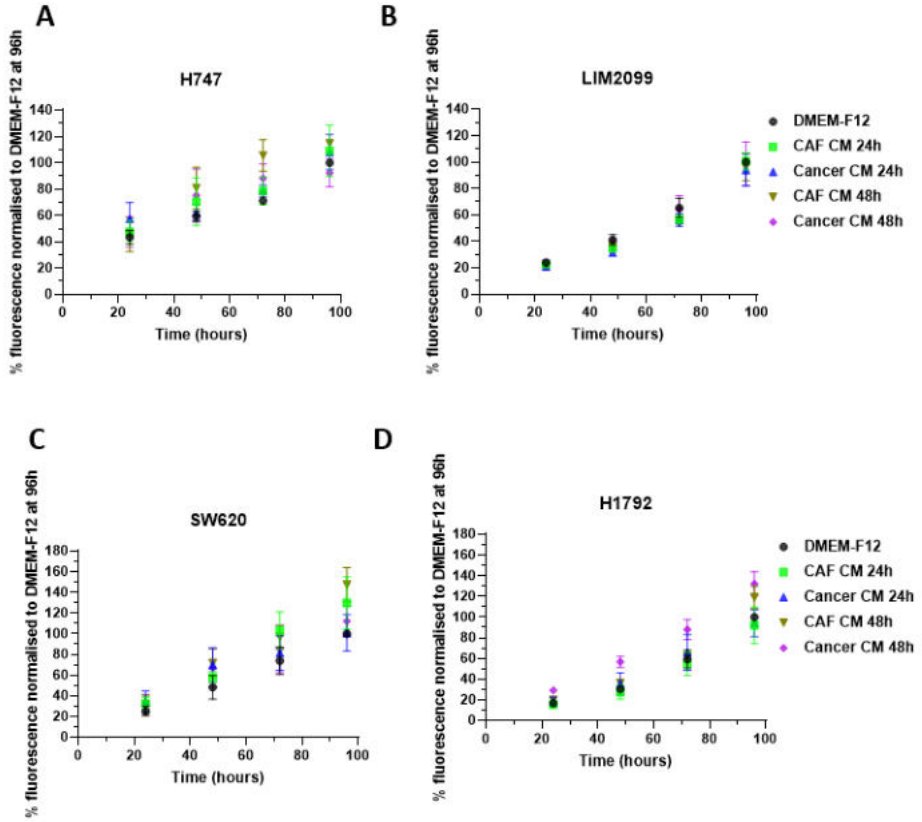


Figure 5.2 Growth curves of colorectal cancer cells incubated in cancer or cancer-associated fibroblast (CAF)-derived conditioned media (CM) using cell confluence CM was harvested from cancer cells and CAFs after 24 or 48 hour incubation. The growth of cancer cells in the appropriate cancer or CAF CM were investigated over a 96 hour timeframe in comparison to DMEM-F12 media through measuring the % cell confluence at regular intervals using Incucyte S3. This was assessed in colorectal cancer **(A)** H747, **(B)** LIM2099, **(C)** SW620; lung cancer **(D)** H1792, **(E)** H2030, **(F)** H23; pancreatic cancer **(G)** CAPAN1, **(H)** DANG, **(I)** MIAPACA2. The % cell confluency was normalised to DMEM-F12 media at the 96 hour timepoint. MIAPACA2 in cancer CM was compared to CAF CM from 48 hour incubations using paired t-test. *=P <0.05. Data is plotted as mean ± standard error of the mean (SEM) of three independent experiments.



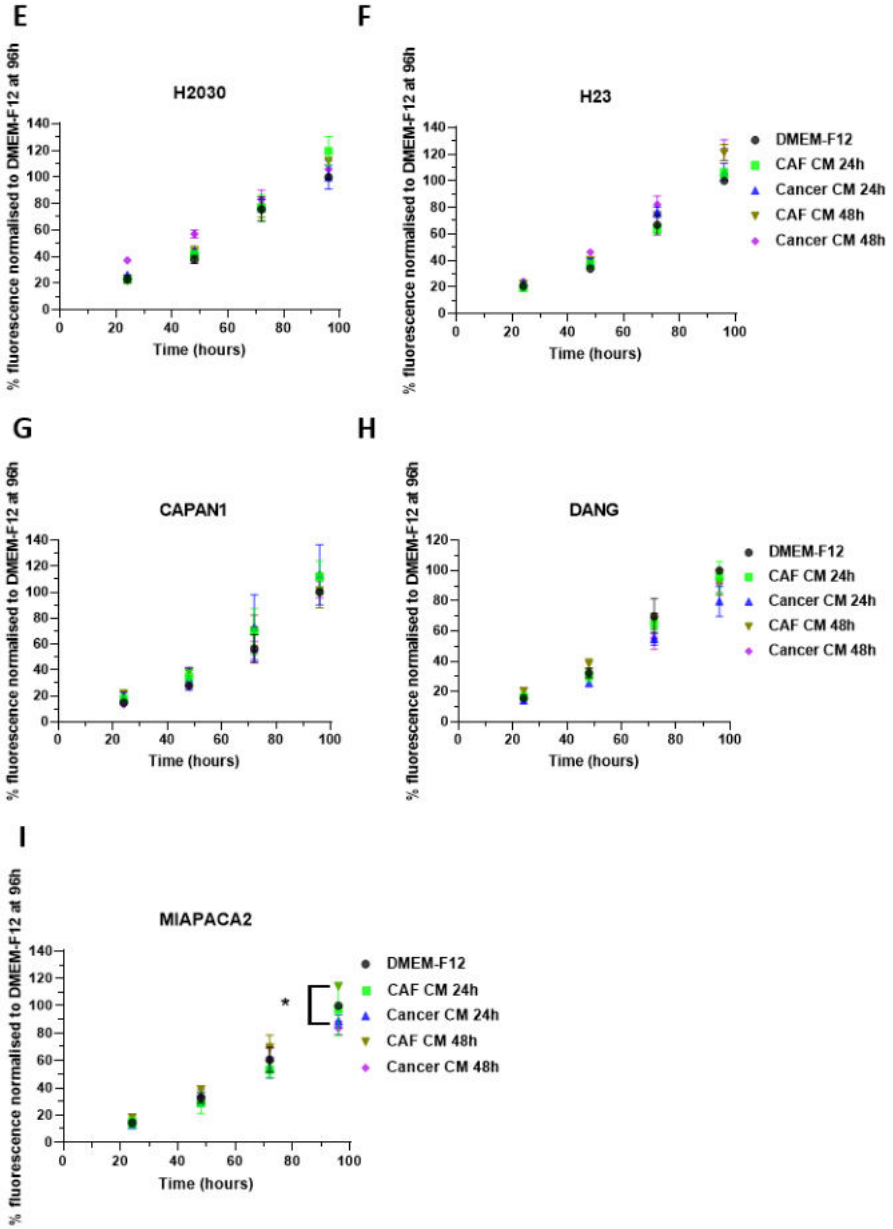
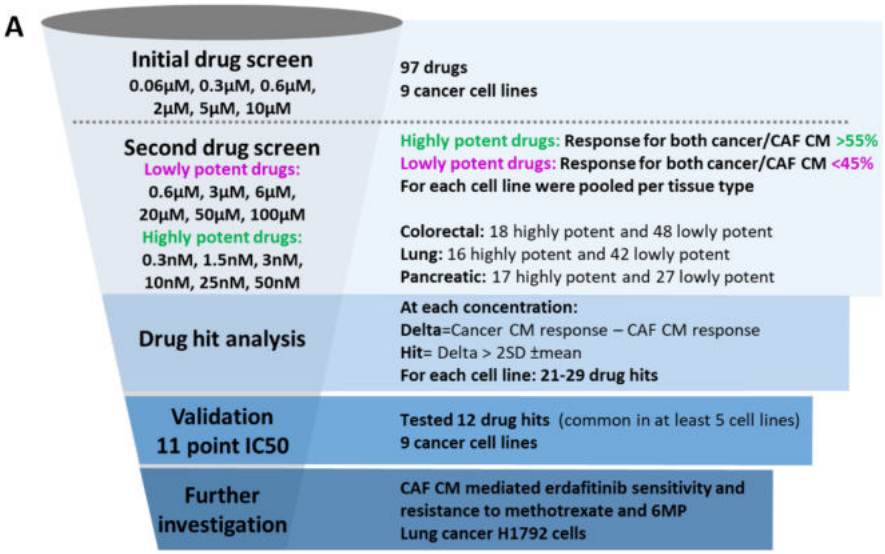


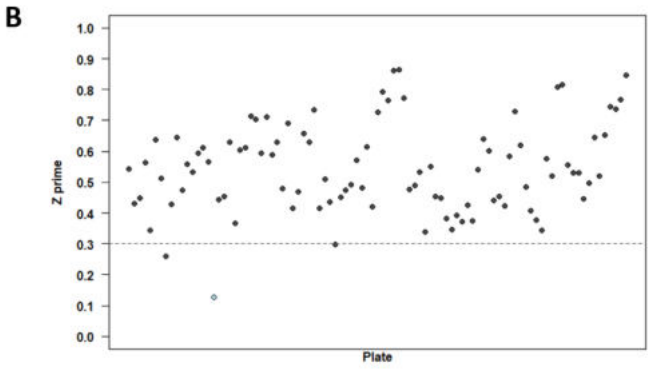
Figure 5.3 Growth curves of cancer cells incubated in cancer or cancer-associated fibroblast (CAF)-derived conditioned media (CM) using cell viability CM was harvested from cancer cells and CAFs after 24 or 48 hour incubation. The growth of cancer cells in the appropriate cancer or CAF CM were investigated over a 96 hour timeframe in comparison to DMEM-F12 media through measuring the cell viability using CellTiter-Blue assays at 24 hour intervals. This was assessed in colorectal cancer **(A)** H747, **(B)** LIM2099, **(C)** SW620; lung cancer **(D)** H1792, **(E)** H2030, **(F)** H23; pancreatic cancer **(G)** CAPAN1, **(H)** DANG, **(I)** MIAPACA2. The % fluorescence intensity was normalised to DMEM-F12 media at the 96 hour timepoint. MIAPACA2 in cancer CM was compared to CAF CM from 48 hour incubations using paired t-test. *=P <0.05. Data is plotted as mean ± standard error of the mean (SEM) of three independent experiments.

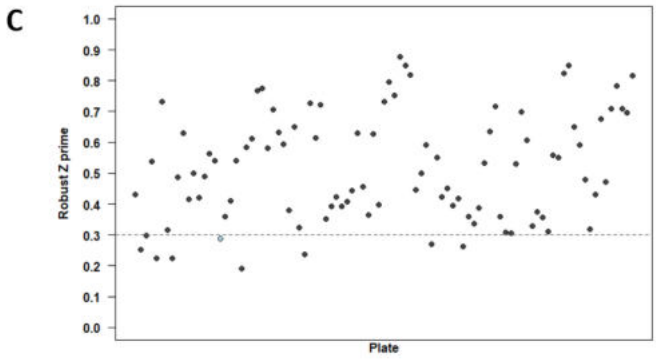
5.3.2 Identifying potential drug resistance and sensitivity in cancer cells incubated with CAF CM

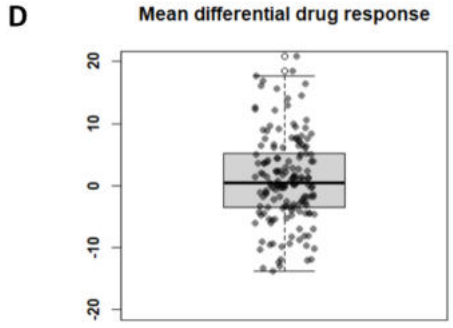
The drug screen panel included 97 anti-cancer drugs (as described in Table 2.5) where 27 are chemotherapy drugs and 70 are targeted therapy drugs (as depicted in the methods chapter Figure 2.1). The drug screen was undertaken in two stages to ensure the appropriate coverage of drug concentrations to determine whether CAF CM media influences drug response. The workflow of the drug screen and its downstream analysis is summarised in Figure 5.4A. It was noted in my previous optimisations that the CM type did not affect the DMSO tolerability since 0.5% and 1% DMSO (v/v) was tolerated by all 9 cancer cell lines with cancer or CAF CM so DMSO would have minimal effect on cell viability during the drug screen.

Initially, the response of 97 drugs in cancer cells incubated with cancer or CAF CM were assessed at six concentrations (0.06, 0.3, 0.6, 2, 5 and 10 µM). After the initial stage, drugs for each cell line which had >55% drug response (termed here as highly potent drugs) or <45% drug response (termed here as lowly potent drugs) across all concentrations tested for both cancer and CAF CM were pooled according to tissue type. These drugs were further investigated using two different concentration ranges in the second screen. Highly potent drugs were assessed again at the lower concentration range (0.3, 1.5, 3, 10, 20, 50 nM) whilst lowly potent drugs were assessed again at a higher concentration range (0.6, 3, 6, 20, 50, 100 µM).


A
Initial drug screen
0.06μM, 0.3μM, 0.6μM, 2μM, 5μM, 10μM
97 drugs
9 cancer cell lines
Second drug screen
Lowly potent drugs:
0.6μM, 3μM, 6μM, 20μM, 50μM, 100μM
Highly potent drugs:
0.3nM, 1.5nM, 3nM, 10nM, 25nM, 50nM
Highly potent drugs: Response for both cancer/CAF CM >55%
Lowly potent drugs: Response for both cancer/CAF CM <45%
For each cell line were pooled per tissue type
Colorectal: 18 highly potent and 48 lowly potent
Lung: 16 highly potent and 42 lowly potent
Pancreatic: 17 highly potent and 27 lowly potent
Drug hit analysis
At each concentration:
Delta=Cancer CM response – CAF CM response
Hit= Delta > 2SD ±mean
For each cell line: 21-29 drug hits
Validation 11 point IC50
Tested 12 drug hits (common in at least 5 cell lines)
9 cancer cell lines
Further investigation
CAF CM mediated erdafitinib sensitivity and resistance to methotrexate and 6MP
Lung cancer H1792 cells


B
Z prime
Plate


C
Robust Z prime
Plate


D
Mean differential drug response

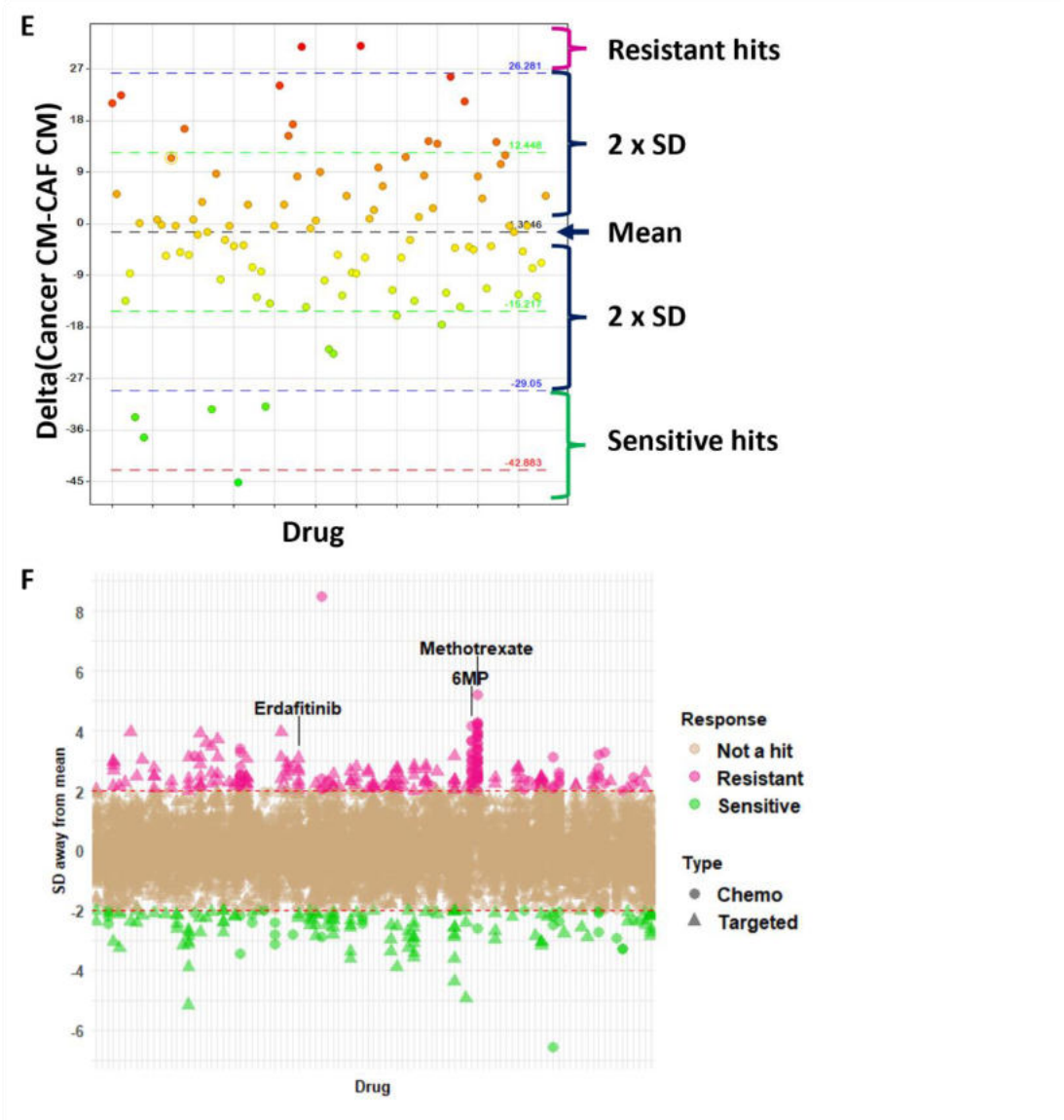


Figure 5.4 Drug screen workflow (A) The drug screen comprised of two parts. For the initial screen, all 9 cancer cell lines incubated in the appropriate conditioned media (CM) were treated with 97 different drugs at concentrations: 0.06, 0.3, 0.6, 2, 5, 10 µM. Response was calculated as % inhibition. In the second screen, drugs where the response was not in the optimal range in the initial screen were reassessed. Lowly potent drugs, where the response for both cancer and cancer-associated fibroblast (CAF) CM <45%, for each cell line were pooled per tissue type. Likewise, highly potent drugs, where the response for both cancer and CAF CM >55%, for each cell line were pooled per tissue type. Hit identification was undertaken at each concentration. Hits are defined if the difference between the cancer and CAF-derived CM drug responses (delta) was more than 2 standard deviations (SD) away from the mean delta of all the drugs at that specific concentration in the cancer cell line. 12 drug hits were common in at least 5 cell lines (irrespective of directionality) and a 11 point IC50 curve was generated for these 12 drugs for all 9 cancer cell lines in the drug validation stage. CAF mediated erdafitinib sensitivity and resistance to methotrexate and 6-mercaptopurine (6MP) were chosen for further investigation. **(B)** Standard Z prime and **(C)** robust Z prime for each of the plates. Z primes of 0.3 is the cutoff for an excellent assay performance but below 0 is suboptimal where the values of the negative and positive controls overlap. The blue datapoint corresponds to the plate which had the lowest standard Z prime of 0.1267 but had a robust Z prime of 0.2876. **(D)** Boxplot of the mean differential drug response for each cell line condition for both the initial and second drug screen. **(E)** Distribution of the deltas at 0.06 µM concentration in H1792 as an example of determining the hits 2 SD away from the mean where positive delta indicates CAF CM mediated resistance and a negative delta indicates CAF CM

mediated sensitivity. **(F)** Distribution of how many SD away from the mean for all the drugs and concentrations analysed for the whole drug screen. Brown= not a hit, pink= CAF CM mediated resistant drug hits, green= CAF CM mediated sensitive drug hits. Circle= chemotherapy (chemo) drug, triangle= targeted therapy drug

18 highly potent drugs and 48 lowly potent drugs were assessed for CRC; 16 highly potent drugs and 42 lowly potent drugs were assessed for NSCLC; and 17 highly potent drugs and 27 lowly potent drugs were assessed for pancreatic cancer. Some half maximal inhibitory concentrations (IC50s) of these drugs are available in the Genomics of Drug Sensitivity in Cancer (GDSC) database where it contains data for all our cell lines except for CRC LIM2099. The majority of the drugs that required reassessment in our drug screen had IC50s defined by GDSC outside the initial range tested in our drug screen (0.06-10μM). For instance, proteasome inhibitor bortezomib was highly potent in our drug screen for all our cell lines and the IC50s range from 4-32 nM in GDSC, which is below the initial concentrations assessed. Similarly, poly(ADP-Ribose) polymerase (PARP) inhibitor veliparib was lowly potent in our drug screen for all our cell lines and the IC50s range from 34-116 μM in GDSC, which is above the initial concentrations we assessed.

The average standard Z prime of the plates in the drug screen was 0.54 and the majority (94 out of 96 plates) had a standard Z prime of ≥0.3, which is the cutoff for an excellent cell-based assay performance (Figure 5.4B). Below 0 is suboptimal where the values of the negative and positive controls overlap. It was noted that the plate with the lowest Z prime of 0.13 had a robust Z prime of 0.29 (Figure 5.4C). Robust Z prime uses median and median absolute deviation instead of mean and standard deviation in standard Z prime and so robust Z prime is less sensitive to outliers. Standard and robust Z primes only estimates the resolution of the assay but not how significant the hit is and so

all the defined drug hits must be analysed with caution until further validation with more technical and biological repeats and a wider concentration range.

Differential drug hits mediated by CAF CM were identified if the difference between the cancer CM response and the CAF CM response (delta) was more than 2 standard deviations away from the mean delta of all the drugs at that specific concentration in a cancer cell line. 2 standard deviations was chosen as to determine the extreme differences that are outside the central 95% of the data and the mean differential drug response at a specific concentration in a cancer cell line is generally close to or around 0 (range: -13.8 to 22.5, median: 0.5) (Figure 5.4D). A differential drug hit with a positive delta equates to CAF CM mediated resistance since cells in the CAF CM had a higher cell viability and so lower drug response compared to cells in cancer CM. On the other hand, a differential drug hit with a negative delta equates to CAF CM mediated sensitivity due to the converse effect. An example of drug hit identification at a specific concentration for a cell line is illustrated in Figure 5.4E and the distribution of all drug hit definitions is highlighted in Figure 5.4F.

With each cell line, 21-29 drugs with differential drug response in CAF CM compared to cancer CM were identified (Table 5.1). More drug resistance mediated by CAF CM were identified compared to drug sensitivity in total with all the cell lines combined where 114 cases had resistance with CAF CM whilst 99 cases had sensitivity with CAF CM. There were 18 cases where the drug hit in the same cell line had both CAF CM mediated sensitivity and resistance defined at different concentrations. The drug hits identified were a mixture of chemotherapy drugs and targeted therapies. 24 chemotherapy drugs (out of 27= 88.8%) were defined as a hit in at least one cell line whilst 58 targeted

therapy drugs (out of 70= 82.9%) were defined as a hit in at least one cell line. There was not a universal differential drug response across all cell lines, which suggests that the drug response is not solely dependent on *KRAS* mutational status. This corresponds with the lack of commonality in the phosphoproteome and proteome changes with CAF CM between the cell lines (Chapter 4).

There was also no commonality in the differential drug response in all 5 *KRAS*^{G12C} mutant cancer cell lines. KRAS^{G12C}-specific inhibitor, sotorasib, only had CAF CM mediated sensitivity in NSCLC H1792 whilst no differential response was observed for the other 4 *KRAS*^{G12C} mutant-cancer cell lines.

Nonetheless, there were some common differential drug responses between cell lines within tissue types. In CRC cells, CAF CM mediated zibotentan sensitivity were identified whilst for NSCLC cells, resistance to methotrexate and sensitivity to fasudil (rho-associated protein kinase 1 (ROCK) inhibitor), SN-38 (irinotecan analog) and pictilisib (PI3K inhibitor) by CAF CM were common. On the other hand, dasatinib (multi-RTK inhibitor) resistance by CAF CM were identified in pancreatic cancer cells. It is worth noting that gemcitabine resistance, which has been widely reported to be mediated by the stroma in pancreatic cancer [reviewed by (246)], was observed in CAPAN1 and DANG where the largest difference between the cancer CM response and the CAF CM response (delta) was 21.7 and 24.8 respectively at 1.5 nM. However, the differential response was not large enough to be identified as a drug hit compared to the other drugs on the drug screen panel at 1.5 nM where a greater difference was seen. Similarly, gemcitabine resistance was seen in MIAPACA2 (largest differential drug response of 25.2 at 10 µM) but was not defined as a hit at 10 µM.

		H747	LIM2099	SW620	H1792	H2030	H23	CAPAN1	DANG	MIAPACA2
Drug	**Target**	**Colorectal cancer**			**Lung cancer**			**Pancreatic cancer**		
Ibrutinib (PCI-32765)	BTK									
Flutamide	AR									
Methotrexate	Anti-folate/Chemo									
Zibotentan (ZD4054)	Endothelin Receptor									
Venetoclax (ABT-199)	BCL2									
Dasatinib (BMS-354825)	Multi RTK									
Erdafitinib	FGFR									
Erismodegib (NVP-DE225, LDE225)	Smoothened									
Galunisertib (LY2157299)	TGFBR									
Mercaptopurine (6MP)	Purine analog/chemo									
Prednisolone	Anti-inflammatory/ Chemo									
Pemetrexed	Anti-folate/Chemo									
Vorinostat (SAHA, MK0683)	HDAC									
Veliparib (ABT-888)	PARP									
AZD4547	FGFR									
Bexarotene	RXR									
Alpelsib (BYL-719)	PI3K									
Cediranib (AZD217)	VEGFR									
Fasudil (HA-1077) HCl	ROCK									
Fluorouracil (Adrucil)	Pyrimidine analog/Chemo									
Pictilisib (GDC-0941)	PI3K									
Imatinib (STI571)	Multi RTK									
IWR-1-endo	WNT/β-catenin									
Niraparib (MK-4827)	PARP									
Tamoxifen	SERM/Chemo									
SN-38 (7-Ethyl-10-hydroxycamptothecin)	Topoisomerase I/Chemo									
17-AAG (KOS953)	HSP90									
Crenolanib (CP-868596)	PDGFR									
Dabrafenib (GSK2118436)	BRAF									
Dacarbazine	Alkylating agent/Chemo									
Doxorubicin	Topoisomerase II/Chemo									
Entrectinib	TRK									
Everolimus (RAD001)	MTOR									
Fludarabine	Purine analog/Chemo									
HDM201	HDM2									
LCL161	IAPs									
Ribociclib (LEE011)	CDK4/6									
MDV3100 (Enzalutamide)	AR									
osimertinib	EGFR									
Oxaliplatin	Alkylating agent/Chemo									
Topotecan	Topoisomerase I/Chemo									

		H747	LIM2099	SW620	H1792	H2030	H23	CAPAN1	DANG	MIAPACA2
		Colorectal cancer			Lung cancer			Pancreatic cancer		
Vincristine sulfate	Antimicrotubule/ Chemo									
AG-221 (Enasidenib)	IDH2									
Sotorasib (AMG-510)	KRAS									
AUY922 (NVP-AUY922)	HSP90									
Ceralasertib (AZD6738)	ATR									
CCT245737 (SRA737)	CHK1									
Decitabine (NSC127716, 5AZA-CdR)	DNA methylation/ Chemo									
Encorafenib	BRAF									
Epirubicin HCl	Topoisomerase II/Chemo									
Gefitinib (ZD1839)	EGFR									
Gemcitabine	Pyrimidine analog/Chemo									
GSK2636771	PI3K									
Lapatinib	HER2									
Lenalidomide (CC-5013)	Immunomodulatory/ Chemo									
Lenvatinib (E7080)	VEGFR									
Panobinostat (LBH589)	HDAC									
RO5126766 (CH5126766)	RAF/MEK									
Ruxolitinib (INCB018424)	JAK									
Sunitinib	VEGFR									
Temozolomide	Alkylating agent/Chemo									
Trametinib (GSK1120212)	MEK									
Vinorelbine	Antimicrotubule/ Chemo									
Ivosidenib (AG-120)	IDH1									
Selumetinib (AZD6244)	MEK									
Empesertib (BAY1161909)	MPS									
Elimusertib (BAY1895344)	ATR									
Bortezomib (PS-341)	Proteosome inhibitor/Chemo									
Alectinib (CH5424802)	ALK									
Crizotinib hydrochloride	ALK									
Defactinib	FAK									
DMXAA (Vadimezan)	STING/Chemo									
Ipatasertib (GDC-0068/RG7440)	AKT									
Ifosfamide	Alkylating agent/Chemo									
Olaparib (AZD2281, Ku-0059436)	PARP									
Paclitaxel (Taxol)	Antimicrotubule/ Chemo									
Palbociclib (PD 0332991)	CDK4/6									
Bemcentinib (R428)	AXL									
SCH772984	ERK									
Fedratinib (TG101348, SAR302503)	JAK									

		H747	LIM2099	SW620	H1792	H2030	H23	CAPAN1	DANG	MIAPACA2
		Colorectal cancer			Lung cancer			Pancreatic cancer		
Thalidomide	Immunomodulatory/ Chemo									
Total		25	25	26	26	29	25	21	29	25

Table 5.1 List of drug hits Differential drug response hits ranked by number of cell lines they were common in irrespective of the directionality of the response. The first 12 drugs that are common in at least 5 cell lines (highlighted above the yellow line) were assessed in the drug validation stage by generating a 11 point IC50 curve for all 9 cancer cell lines. Green=CAF CM mediated sensitivity, pink=CAF CM mediated resistance and grey=CAF CM mediated sensitivity and resistance defined at different concentrations. Chemo=chemotherapy

5.3.3 CAF CM consistently mediates erdafitinib sensitivity and resistance to methotrexate and 6-mercaptopurine

The differential drug response hits were ranked by the number of cell lines they were common in irrespective of the directionality of the response (sensitive or resistance) so the analysis would not be biased by any manual reviewing and filtering (Table 5.1). From this, 12 drug hits common in at least 5 cell lines were further investigated by reordering a new batch of the drugs and generating IC50 curves with 11 different concentrations for all 9 cancer cell lines of interest.

Anti-folate methotrexate had the greatest consistent resistance with CAF CM in 4 out of the 9 cancer cell lines. This occurred in NSCLC H1792 and H23 and pancreatic cancer CAPAN1 and DANG (Figure 5.5A-E) as the cell viability seemed relatively constant in CAF CM with increasing methotrexate concentration compared to cancer CM. This corresponds to our initial drug screen analysis where methotrexate was defined as a hit across all 6 concentrations tested in H1792 and 5 out of the 6 concentrations for H23, CAPAN1 and DANG. There are no known mutations defined by CCLE that are unique to these cell lines compared to the other 5 cancer cell lines and there were no unique protein or phosphopeptide changes in H1792, H23, CAPAN1 and DANG with 96 hour incubation in CAF CM compared to the other 5 cancer

cell lines from our basal state (phospho)proteome analysis detailed in chapter 4. Further (phospho)proteome analysis after methotrexate treatment with CAF CM compared to cancer CM for all 9 cancer cell lines may explain the differential phenotypes in H1792, H23, CAPAN1 and DANG compared to the other 5 cancer cell lines.

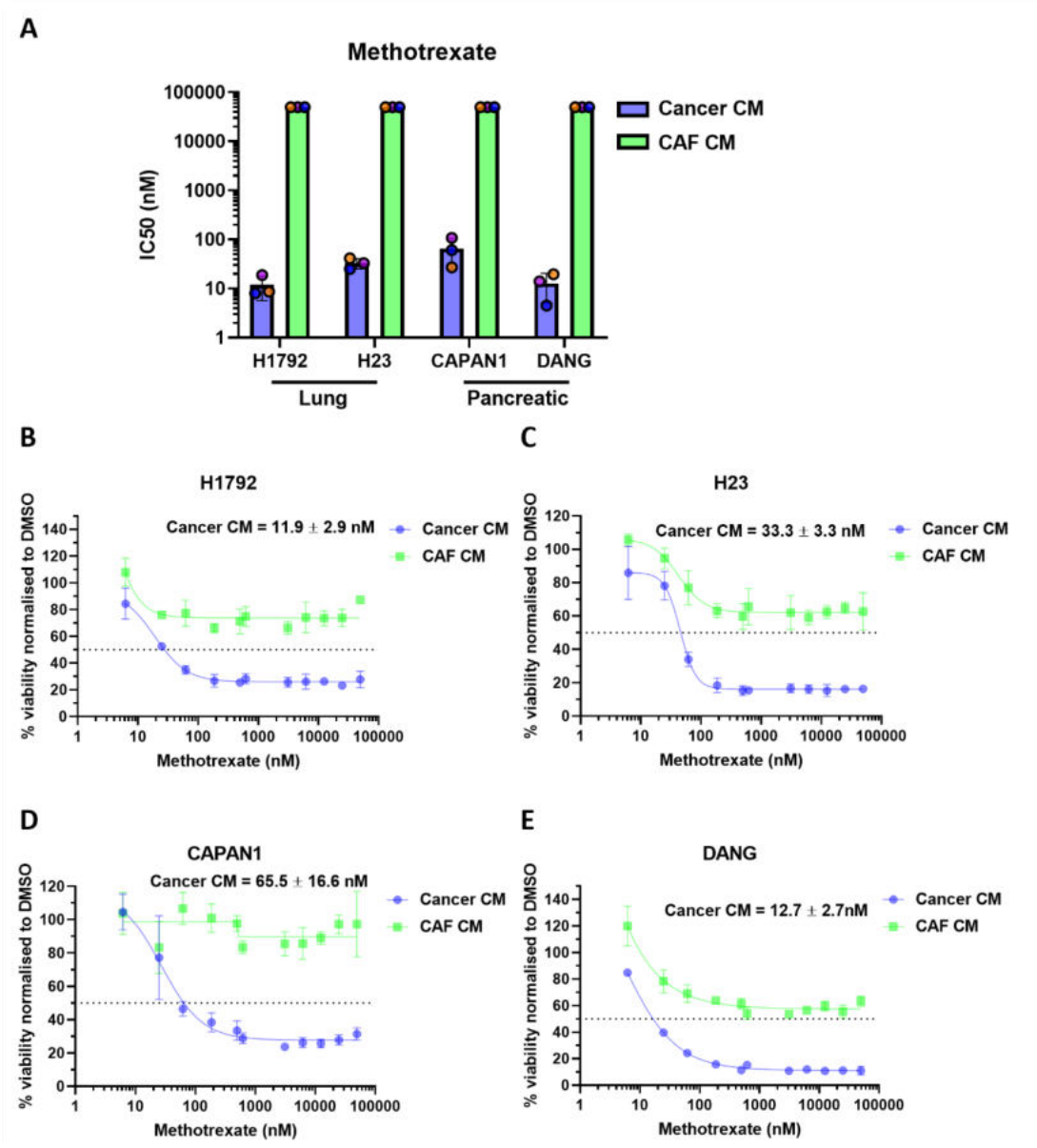


Figure 5.5 Methotrexate resistance by cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM CM was harvested from cancer cells and CAFs after 48 hours incubation. 24 hours after seeding the cells in the appropriate media, cells were treated with 11 serial dilutions of methotrexate and cell viability was measured using CellTiter-Blue assays 72 hours after treatment. **(A)** Barplot of the methotrexate IC50s in lung cancer H1792 and H23 and in pancreatic cancer CAPAN1 and DANG with cancer or CAF CM. IC50s could not be determined in cells with cancer CM and thus are plotted at the maximum

concentration investigated (50,000 nM). Methotrexate dose response curve of **(B)** H1792, **(C)** H23, **(D)** CAPAN1 and **(E)** DANG in cancer or CAF CM. Response curves are plotted as mean ± standard error of the mean (SEM) of three technical repeats and are representative of three independent experiments.

Purine analog 6-mercaptopurine (6MP) was also found to be consistently resistant with CAF CM compared to cancer CM in NSCLC H1792 and pancreatic cancer CAPAN1 (Figure 5.6A-C) because there was relatively minimal response with CAF CM that an IC50 could not be generated. In our drug screen, 6MP was defined as a CAF CM resistant hit at 5 concentrations (3, 6, 20 50 and 100 µM) for H1792 whilst it was defined at 5 and 10 µM for CAPAN1. This is in line with the IC50s determined from the cells in cancer CM: 2.6 ± 0.1 µM for H1792 and 2.0 ± 0.06 µM for CAPAN1.

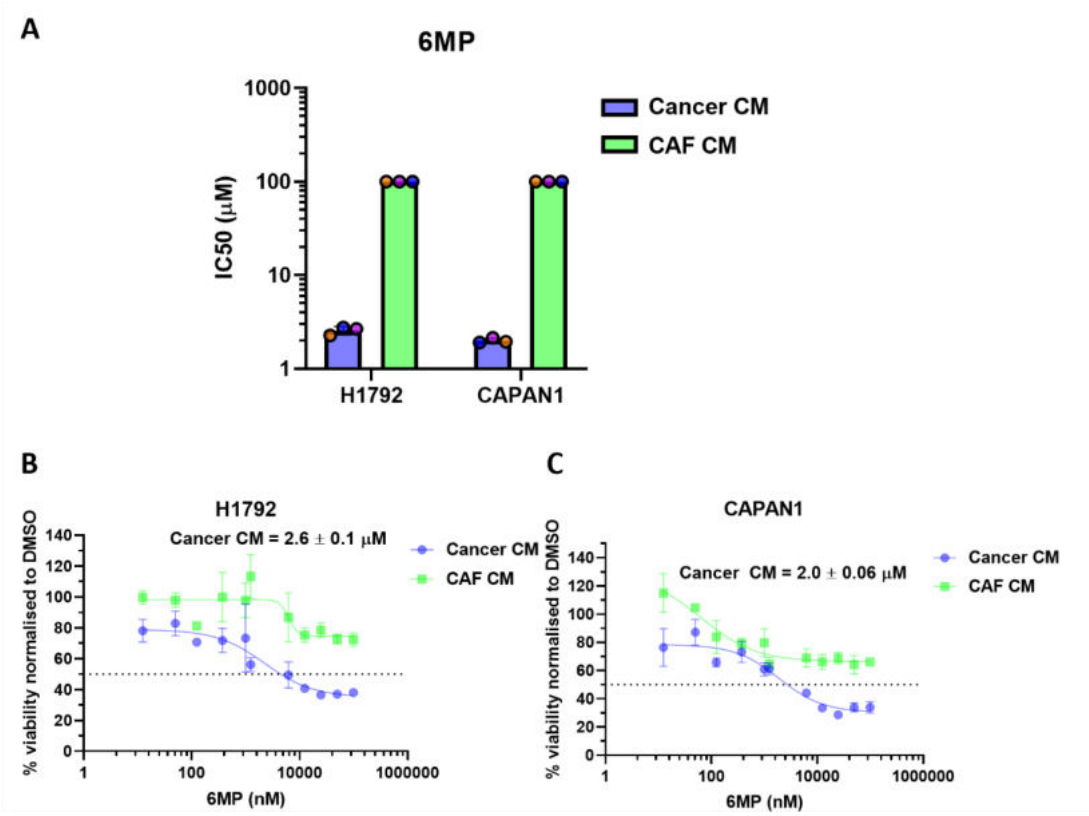


Figure 5.6 6-mercaptopurine (6MP) resistance by cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM CM was harvested from cancer cells and CAFs after 48 hours incubation. 24 hours after seeding the cells in the appropriate media, cells were treated with 11 serial dilutions of 6MP and cell viability was measured using CellTiter-Blue assays 72 hours after treatment. **(A)** Barplot of the 6MP IC50s in lung cancer H1792 and in pancreatic cancer CAPAN1 with cancer or CAF CM. IC50s could not be determined in cells with cancer CM and thus are plotted at the maximum concentration

investigated (100 µM). 6MP dose response curve of **(B)** H1792 and **(C)** CAPAN1 in cancer or CAF CM. Response curves are plotted as mean ± standard error of the mean (SEM) of three technical repeats and are representative of three independent experiments.

Lastly, CAF CM mediated sensitivity to fibroblast growth factor receptor (FGFR) inhibitor erdafitinib was validated in NSCLC H1792 where the IC50 was 8.7 ± 0.6 µM and 3.2 ± 0.3 µM with cancer CM and CAF CM, respectively (Figure 5.7A-B). In contrast, CAF CM mediated erdafitinib sensitivity in NSCLC H23 and CAF CM mediated erdafitinib resistance CRC H747 and SW620 were not consistently reproduced from the drug screen.

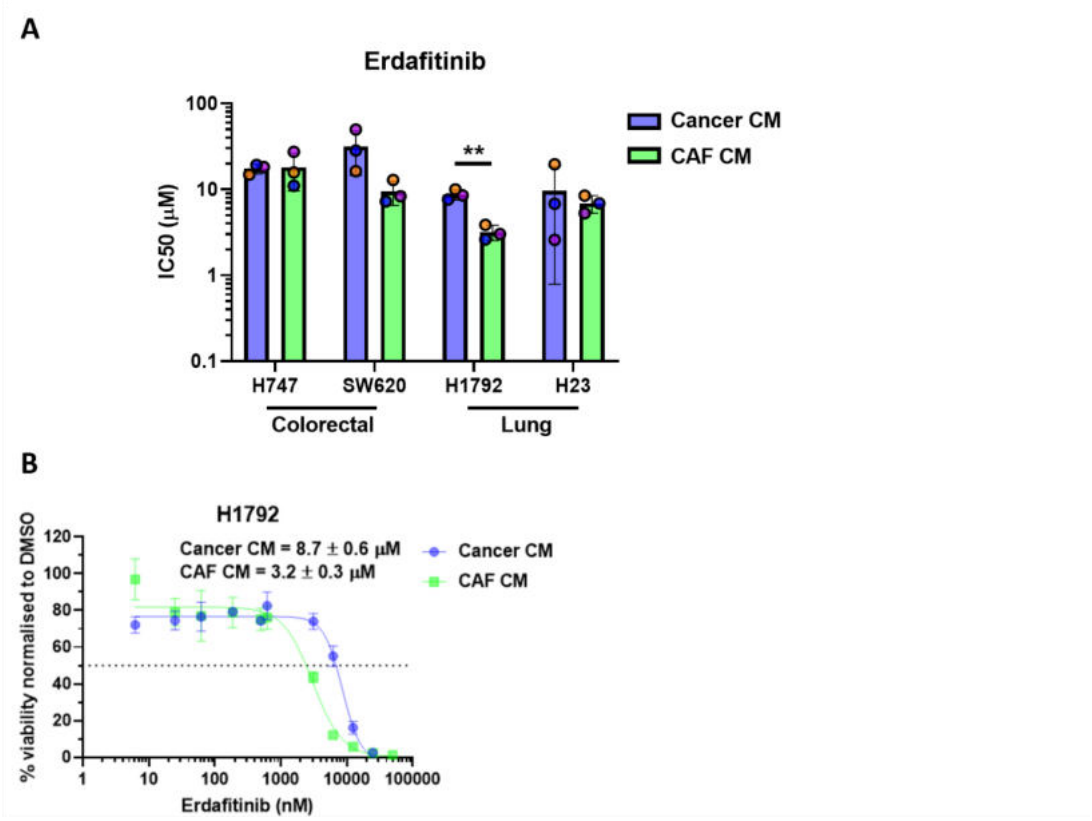


Figure 5.7 Erdafitinib response by cancer-associated fibroblast (CAF) conditioned media (CM) compared to cancer CM CM was harvested from cancer cells and CAFs after 48 hours incubation. 24 hours after seeding the cells in the appropriate media, cells were treated with 11 serial dilutions of erdafitinib and cell viability was measured using CellTiter-Blue assays 72 hours after treatment. **(A)** Barplot of the erdafitinib IC50s in colorectal cancer H747 and SW620 and in lung cancer H1792 and H23 with cancer or CAF CM. Erdafitinib dose response curve of **(B)** H1792 in cancer or CAF CM. Erdafitinib treated H1792 in cancer CM was compared to CAF CM using t-test. **=P <0.01. Response curves are plotted as mean ± standard error of the mean (SEM) of three technical repeats and are representative of three independent experiments.

Unfortunately, no consistent differential drug responses were validated for the other 9 drug hits. This illustrates some of the limitations with drug screens using one technical repeat and no biological replicates and when undertaking this hit analysis approach without considering (1) the extent of inhibition the differential response lies, (2) the differential response at other concentrations or (3) the concentration at which the hit is defined. Nevertheless, CAF CM mediated erdafitinib sensitivity and resistance to methotrexate and 6MP were consistently observed in some cancer cell lines and the overall mechanism by which CAFs affect the response to these drugs has not been studied before using (phospho)proteomics. The response to these drugs in NSCLC H1792 were further studied by undertaking global and targeted (phospho)proteomic approaches (Chapter 6) since there were consistent differential drug responses in H1792 and the (phospho)proteome of H1792 was greatly affected by CAF CM compared to the other cancer cell lines (Chapter 4).

5.4 Discussion

Many recent studies have incorporated the use of stromal cells to further understand the role of the tumour microenvironment in drug resistance, which is more representative compared to focusing on cancer cells alone. However, often drug resistance mechanistic studies with stromal cells lack a wide drug screen panel alongside an unbiased analysis of the secreted proteins and global profiling of the drug signatures. Furthermore, how the tumour microenvironment, including CAFs, influences drug response in *KRAS* mutant-cancer cells from different tissues is not well explored.

A bespoke panel of 97 anti-cancer drugs was created to investigate a wide coverage of drug targets that have been FDA-approved or are being tested in

clinical trials unlike most studies where they focus on a specific drug of interest. Drug hits were determined if the differential drug response was more than 2 standard deviations away from the mean delta of all the drugs at the specific concentration for each of the cancer cell lines. The limitations to this method are we could potentially miss marginal hits and it does not clarify as to where on the scale of % drug inhibition the differential response lies.

Using our approach in the drug screen experiment and analysis, 21-29 drugs were found to have differential drug response in each of the cancer cell lines with CAF CM compared to cancer CM. Straussman *et al* observed a more pronounced effect of the stromal cells on targeted therapy response compared to chemotherapy (93) but targeted therapies formed a large proportion of their drug screen panel (23 out of the 35 drugs) and they only focused on BRAF inhibitor PLX4720 so they did not validate all their hits. Similarly, most of our drug hits were targeted therapies but this is biased by the relatively larger number of targeted therapies on our panel (70 targeted therapies out of 97 drugs =72.2%).

From all the drug hits in our drug screen, there were no drugs that were universally found to have a differential response in all 9 cancer cell lines, suggesting that there is no single overarching mechanism of resistance to a given drug caused by CAF CM. However, among the majority of the *KRAS* mutant-cancer cell lines, common drug hits irrespective of the directionality of the response were identified, which were further assessed. Also, there were some drugs which might have a common differential drug response with CAF CM in cancer cell lines of the same tissue type. Not all of these drugs were

further investigated and a wider cell line panel is required to validate as to whether the differential drug responses are truly common within a tissue type.

I validated that CAF CM results in erdafitinib sensitivity and resistance to chemotherapeutic agents methotrexate and 6MP in some of the cancer cell lines by generating IC50 curves. Methotrexate resistance mediated by CAF CM has been investigated by Zhang *et al* in CRC cells. (247). In their study, they identified caudal-related homeobox 2 (CDX2) and hephaestin (HEPH) downregulation in methotrexate resistant CRC cells and miR-24-3-p in the CAF exosomes promoted higher resistance compared to normal fibroblast exosomes. miR-24-3-p targets CDX2 which prevents HEPH transcription but how HEPH supresses cell viability and increase apoptosis was not elucidated or discussed. It is possible that our observations in CAF CM mediated methotrexate resistance may occur through a similar mechanism but investigation into miRNAs is outside the scope of this project.

Furthermore, Straussmann *et al* had methotrexate on their drug panel but their supplementary results only showed its assessment in 4 breast cancer and 4 head and neck squamous cancer (HNSCC) cell lines and not in any of the colorectal, lung or pancreatic cancer cell lines which were used for the assessment of other drugs (93). Of the cell lines Straussman *et al* investigated, methotrexate had minimal drug response changes co-culture with stromal cells except for increased sensitivity in HNSCC with human dermal fibroblasts, which was not discussed in the paper and is in complete contrast to the results we have seen in our cell lines. The differences in our results and Zhang *et al* compared to Straussman *et al* on the effect of stromal cells on methotrexate response may be due to cancer and fibroblast type.

Therefore, from our drug screen analysis, we were able to identify anti-cancer drugs where its response is not known to be affected by CAFs in *KRAS* mutant-cancer cells. While the role of methotrexate resistance in cancer caused by CAFs have been described before (247), I identified resistance to 6MP and sensitivity to erdafitinib to a proportion of my cell line panel exposed to CAF CM, which is a novel observation. Further understanding on the mechanisms by which CAFs affect drug response could be exploited as a therapeutic strategy. Thus, potential CAF CM mediated erdafitinib, methotrexate and 6MP response mechanisms in H1792 were further investigated by defining what the differential (phospho)proteome profiles are between H1792 in CAF and cancer CM with drug treatment (Chapter 6).

Chapter 6 Understanding the role of CAF-derived secreted proteins in mediating erdafitinib sensitivity and resistance to methotrexate and 6MP in NSCLC H1792 cells

6.1 Introduction

Large scale genomics have revealed fundamental cancer mutations which drive drug resistance for over 20 years and has facilitated the stratification for cancer treatment. For instance, CRC patients bearing *KRAS* mutations are not eligible for EGFR inhibitor (cetuximab) treatment (242) and so often cancers are tested for RAS mutation by Cobas mutation test (248). Moreover, proteomic and phosphoproteomic studies have highlighted changes in the signalling network within cancer cells that promote adaptation to cancer therapy, which could be exploited as a combination treatment strategy to overcome drug resistance.

Even though these approaches are critical in understanding drug resistance mechanisms that are autonomous to cancer cells, other cell types in the tumour microenvironment could influence the signalling and proteome profiles of cancer cells that drive drug resistance. Thus, there is relative paucity of proteomic and phosphoproteomic analysis on CAF-mediated drug response in cancer cells, especially in the context of *KRAS* mutations.

A combination of various global proteomic technologies and targeted analysis would provide a better understanding on drug resistance because often drug resistance studies incorporating aspects of the tumour microenvironment focus on only specific signalling molecules or pathways of interest without considering other possible mechanisms.

A targeted phosphoproteomic/proteomic approach can be applied by probing known pathways and proteins associated with the inhibitor as demonstrated by Straussman *et al* where they assessed the AKT and ERK pathway to contexualise stroma mediated BRAF inhibitor resistance (93). A targeted

approach would highlight the efficacy based on known direct drug effects but it would not provide an overall view on the molecular phenotype and implications on potential cellular phenotypes. Therefore, a targeted approach could potentially miss critical mechanism that are not reported in the literature.

Global phosphoproteomic analysis can be undertaken using mass spectrometry with the potential to assess >10,000 sites (249) that are predominately represented by the highly abundant serine and threonine phosphorylation (90% and 10%, respectively) whilst tyrosine phosphorylation exists at relatively lower levels (0.05%) (208). To better capture phosphorylated tyrosine, I have combined elements of both targeted and global analysis of the (phospho)proteome into my project to understand the mechanisms behind CAF CM mediated differential drug response.

6.2 Aims

As described in chapter 5, a screen of 97 anti-cancer drugs was undertaken for 9 *KRAS* mutant-cancer cell lines grown in media previously exposed to CAFs or cancer cells. Three drugs with the most consistent changes with CAF CM (erdafitinib sensitivity and resistance to methotrexate and 6MP) were chosen to be further studied in NSCLC H1792 because the (phospho)proteome of H1792 was greatly affected by CAF CM compared to the other 8 cancer cell lines as detailed in Chapter 4.

Therefore, the potential mechanisms behind how the CAF CM mediated the differential drug response in H1792 were investigated where the aims were to:

- Characterise the differential (phospho)proteome with cancer or CAF CM upon drug treatment

- Assess how the CAF CM mediated drug response mechanisms could be exploited with available drugs

6.3 Results

6.3.1 Characterising differential (phospho)proteomic changes in H1792 cells caused by CAF CM compared to cancer CM after drug treatment

To understand the global (phospho)proteome profile with drug treatment in NSCLC H1792 cells incubated with CAF or cancer CM, the cells were treated with 3xGi50 of erdafitinib, methotrexate or 6MP for 24 hours in duplicates and mass spectrometry was used to profile the protein expression levels and phosphorylation status. 24 hour post-treatment was chosen as our initial timepoint to determine the differential effect of drug treatment between the two CM types after one cell doubling time. As erdafitinib is known to impact downstream FGFR signalling, antibody-bead based assays (Luminex) was used for targeted analysis of signal transduction caused by erdafitinib in response to CAF CM compared to cancer CM in triplicates (Figure 6.1A) where 67 analytes were assessed (as detailed in methods chapter section 2.16). Methotrexate and 6MP were not assessed using Luminex as these are chemotherapy drugs that are generally accepted to not inhibit signal transduction directly.

Since the duplicates of the drug treated H1792 cells with the two CM types did not cluster tightly for the mass spectrometry analysis, further normalisation was introduced for downstream analysis. To filter out the background noise, valid values across all samples were used followed by row cluster normalisation, Z score column normalisation and width adjustments. This

resulted in the assessment of 5,810 proteins and 20,006 phophopeptides in our downstream analysis.

For the phosphoproteome profile (Figure 6.1B), the samples clustered loosely according to treatment but the separation between the two CM types was clearer for the erdafitinib treated samples. For the full proteome profile (Figure 6.1C), the DMSO, methotrexate and 6MP treated cells did not cluster separately and there were variations between duplicate samples whilst erdafitinib treated samples clustered separately with a distinction between the two CM types.

For the Luminex dataset, samples clustered according to the different CM types and treatment conditions in the PCA analysis (Figure 6.1D). This demonstrates the reproducibility in the biological repeats and the distinct changes on specific pathways at the basal state level and when exposed to erdafitinib.

For each drug, the significant protein and phosphoproteome changes between the two CM types were identified from both mass spectrometry and Luminex analysis and for the mass spectrometry analysis, enrichment analysis was undertaken for the significant changes to highlight potential biological processes, kinases and transcription factors that were significantly impacted. Here, the main changes will be individually detailed for each drug and associated with potential CAF-mediated drug response mechanisms.

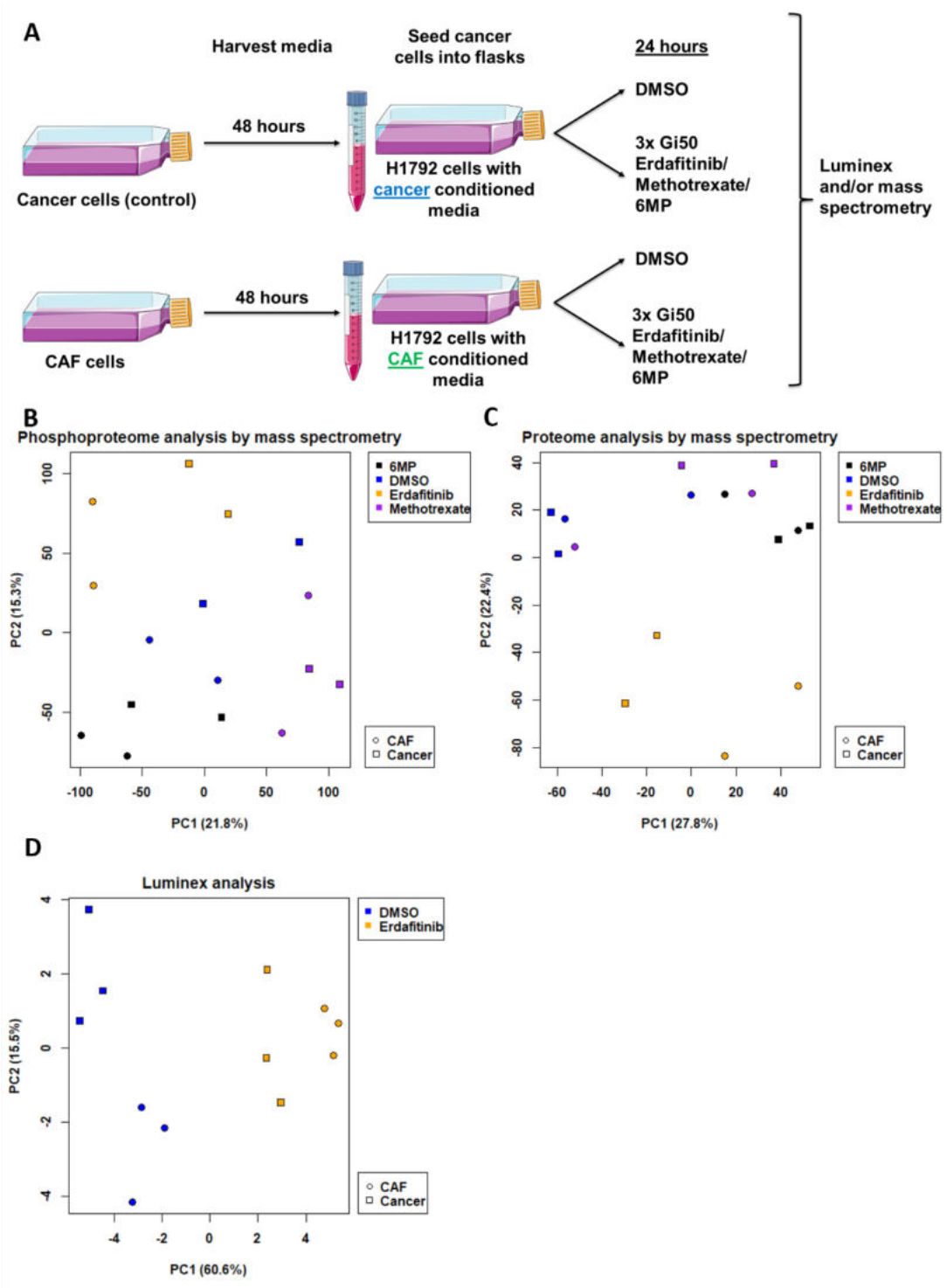


Figure 6.1 (Phospho)proteome of lung cancer H1792 cells in cancer or cancer-associated fibroblast (CAF) conditioned media (CM) with 3xGi50 treatment of erdafitinib, methotrexate or 6-mercaptopurine (6MP) (A) CM was produced from 48 hour incubations. H1792 cells were maintained in either cancer or CAF CM and were treated with erdafitinib, methotrexate or 6MP at 3xGi50 for 24 hours. The global phosphoproteome and proteome was assessed for all conditions by mass spectrometry in duplicates and for a targeted analysis, an antibody-bead based assay (Luminex) was used to assess 67 analytes in erdafitinib treated cells compared to the DMSO control in triplicates. **(B)** Principal component analysis (PCA) of the phophoproteome and **(C)** proteome using mass spectrometry analysis of all the conditions. **(D)** PCA of the erdafitinib and DMSO treated cells studying phophosprotein and protein changes using the Luminex platform.

6.3.2 Characterising mechanisms of CAF CM mediated erdafitinib sensitivity

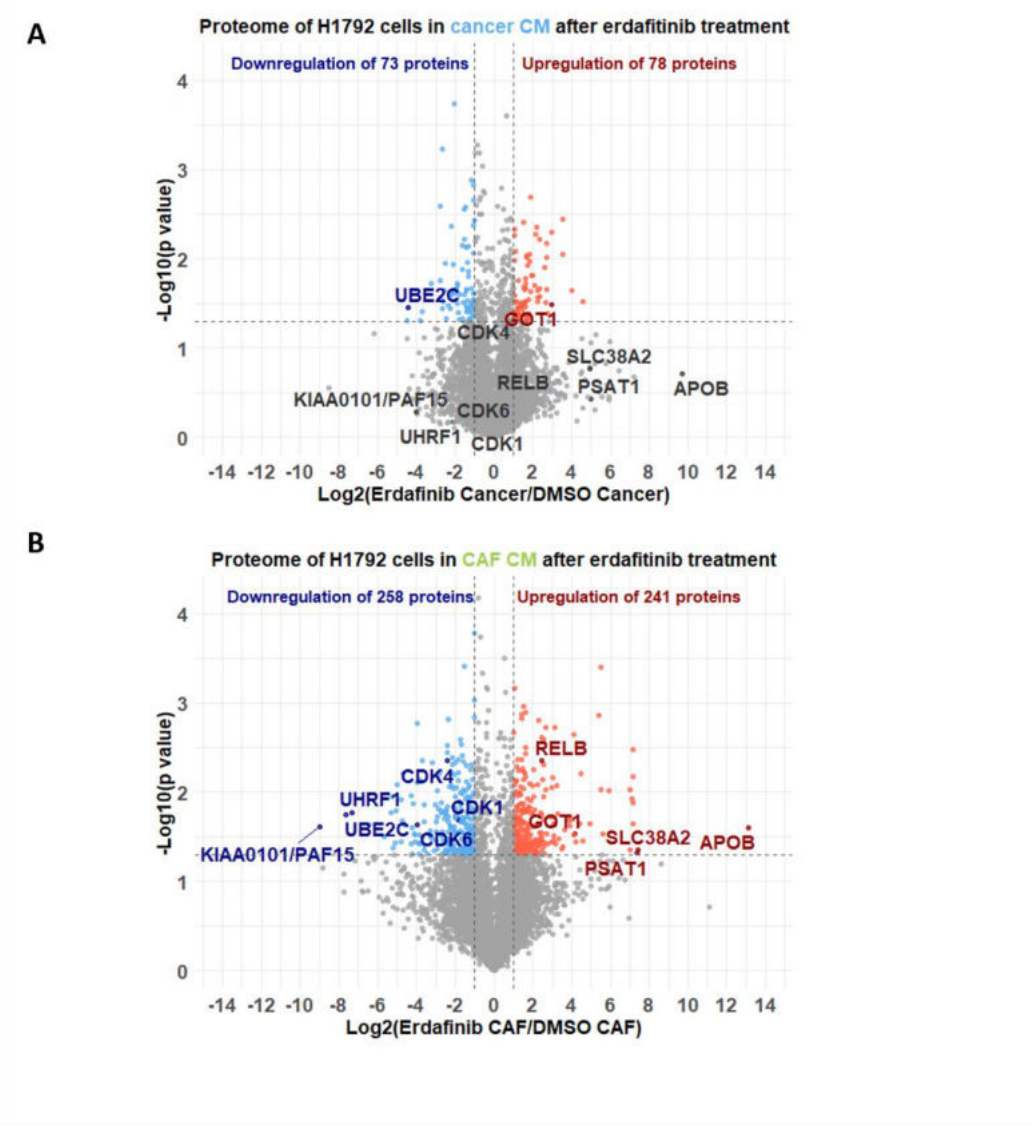
Mass spectrometry analysis revealed more protein and phosphopeptide changes promoted by erdafitinib treatment in H1792 cells with CAF CM compared to cancer CM (Figure 6.2A-D), which corresponds with the greater response to erdafitinib treatment. 499 proteins had >2-fold change ($p<0.05$) in expression after erdafitinib treatment with CAF CM whilst it was 151 proteins with cancer CM (Figure 6.2A-B, Appendix Table 9). 1189 phosphopeptides had differential expression of >2-fold change ($p<0.05$) after erdafitinib treatment with CAF CM whereas it was 740 phosphopeptides with cancer CM (Figure 6.2C-D, Appendix Table 10).

Similarly, Luminex demonstrated significant changes in some of the phosphorylated and total proteins on the panel (10 of the 67 analytes) with erdafitinib treatment for only in H1792 cells in CAF CM and not in cancer CM (Figure 6.3A-B).

Erdafitinib inhibits FGFR downstream signalling pathways more in CAF CM compared to cancer CM

Erdafitinib targets FGFR and inhibits its phosphorylation and transactivation (250). FGFR phosphorylation was not detected by mass spectrometry but pan-FGFR1 phosphorylation was an analyte measured by Luminex and there was a small, albeit not significant ($p=0.15$), decrease after erdafitinib treatment with CAF CM but not cancer CM (Figure 6.3C). There were attempts to probe specific activating phosphosites of FGFR and fibroblast growth factor receptor substrate (FRS) via immunoblotting but I could not find commercially available antibodies that could detect bands at the correct molecular weight.

FGFR activity in response to CAF CM and erdafitinib treatment could be validated further directly using kinase assays. Nevertheless, both mass spectrometry and Luminex analysis demonstrated indirectly the greater downregulation of FGFR activity with CAF CM after erdafitinib treatment via the assessment of downstream pathways. A heatmap of the significant FGFR downstream pathway changes with CAF CM after erdafitinib treatment detected by mass spectrometry is summarised in Figure 6.2E.



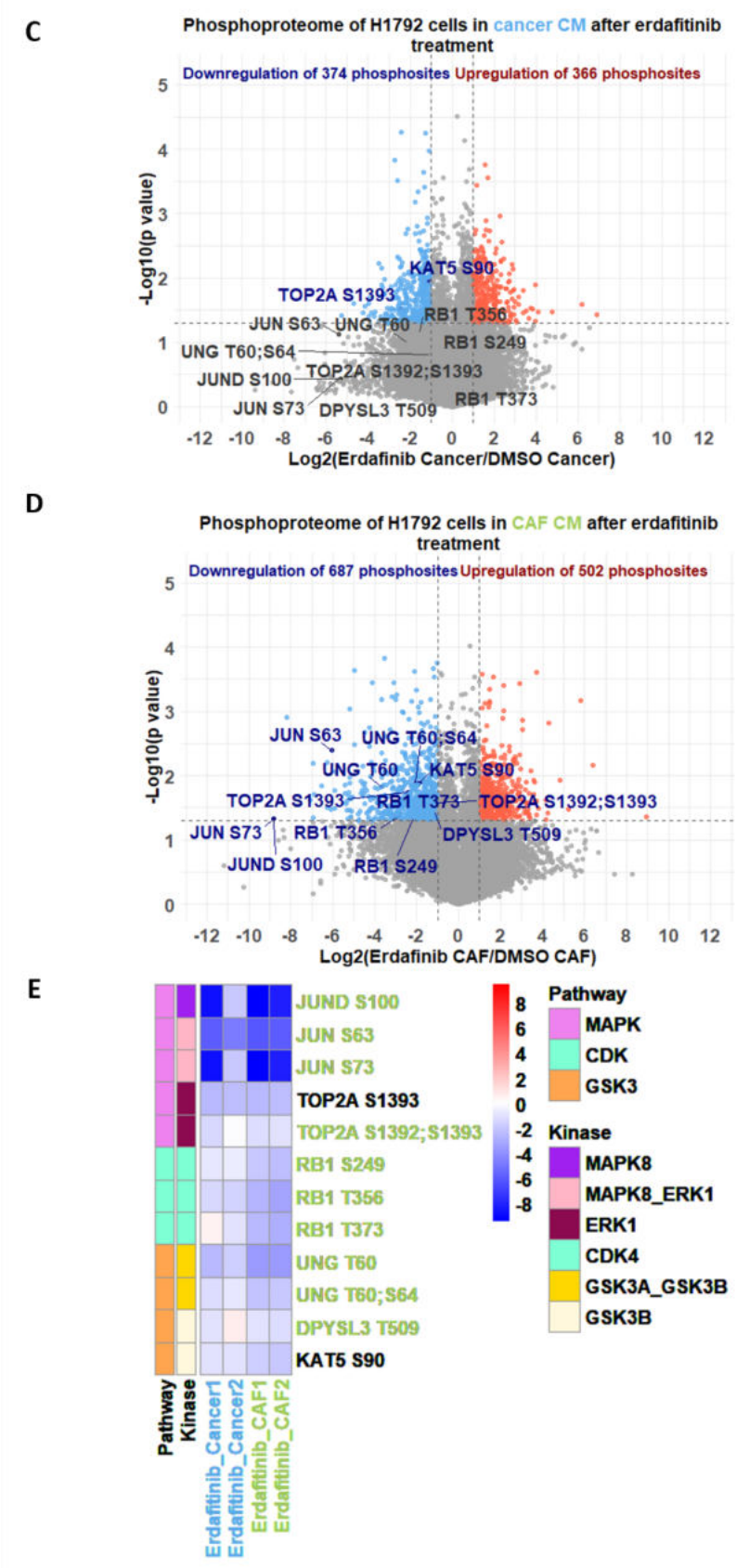


Figure 6.2 Differential (phospho)proteome of lung cancer H1792 cells in cancer or cancer-associated fibroblast (CAF) conditioned media (CM) with 3xGi50 erdafitinib treatment Volcano plots of the **(A-B)** full proteome profiles and **(C-D)** phosphoproteome profiles in H1792 cells in cancer or CAF CM exposed to 3xGi50 erdafitinib using one-sample

t-test. **(E)** Heatmap of the key phosphorylation changes downstream of FGFR with cancer or CAF CM after erdafitinib treatment compared to DMSO (values=$\log_2$(drug/DMSO)). Black=significant change with cancer and CAF CM. Green=significant change with CAF CM only.

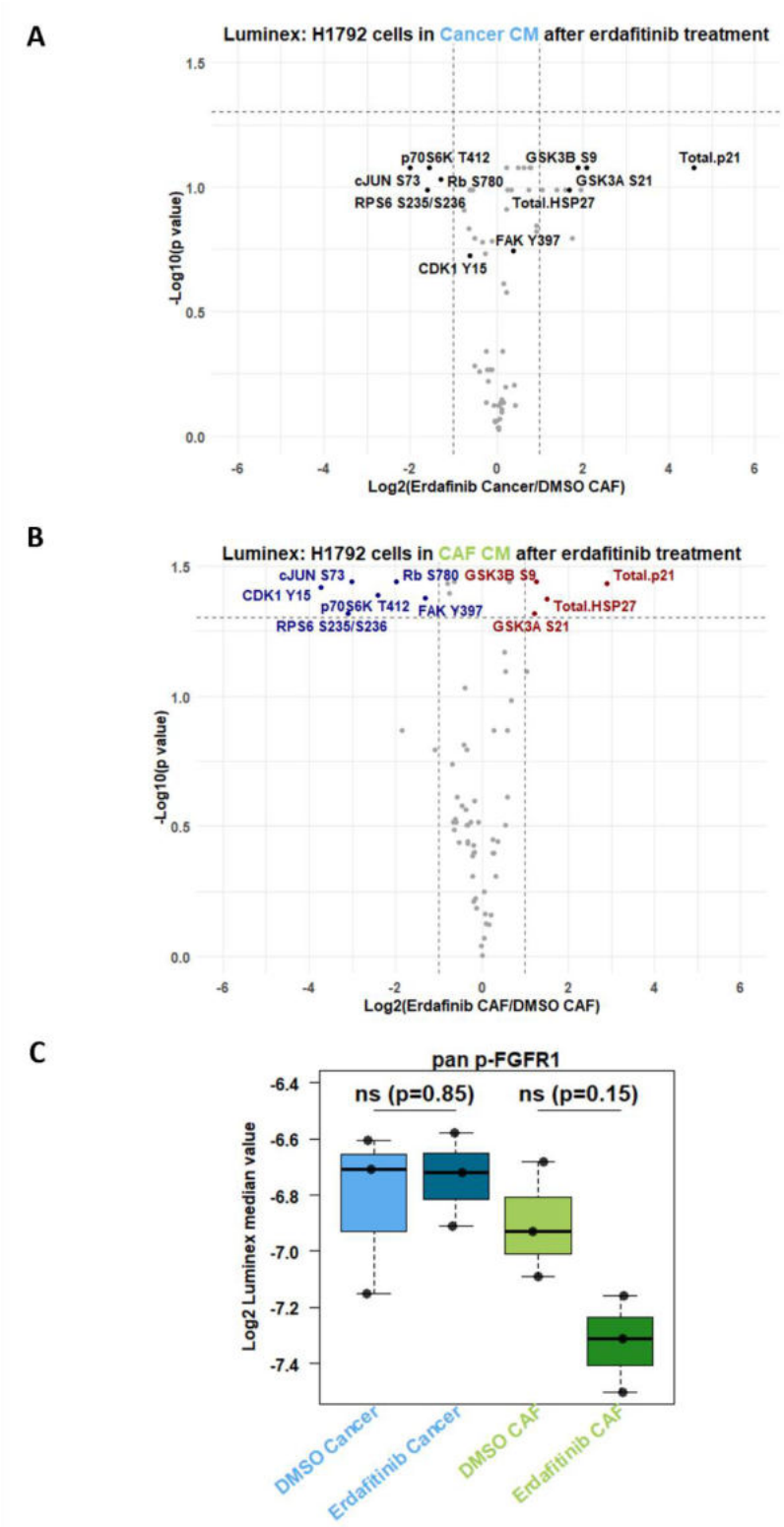


Figure 6.3 Targeted (phospho)proteome analysis of lung cancer H1792 cells in cancer or cancer-associated fibroblast (CAF) conditioned media (CM) with 3xGi50 erdafitinib treatment (A-B) Volcano plots of the differential phosphoprotein or total protein measured using an antibody-bead based assay (Luminex) in H1792 cells with cancer or CAF CM

exposed to 3xGi50 erdafitinib using paired t-test. **(C)** Boxplot of pan phosphorylated FGFR1 expression with DMSO or erdafitinib treatment in H1792 cells in cancer or CAF CM using the median fluorescence intensity values from Luminex analysis. Blue=cancer CM, Green= CAF CM.

For instance, MAPK pathways act downstream of FGFR (251) and both mass spectrometry and Luminex identified significant downregulation in cJUN S73 phosphorylation with CAF CM after erdafitinib treatment (Figure 6.2D and 6.3B) but not with cancer CM after erdafitinib treatment (Figure 6.2C and 6.3A). cJUN S73 phosphorylation was the most downregulated phosphosite in the mass spectrometry dataset alongside cJUN S63 phosphorylation and JUND S100 phosphorylation (Figure 6.2D). cJUN S63/S73 and JUND S100 phosphorylation are critical in promoting transcriptional activity (252, 253) but it should be noted that there are no consensus datasets on cJUN and JUND target genes detailed in EnrichR (139, 140) so these transcription factors were not highlighted in the transcription factor enrichment analysis.

The downregulation of the cJUN and JUND phosphosites correspond to the significant downregulated activity of MAPK8 (p value=0.001) predicted by kinase enrichment analysis of the significant phosphoproteome changes detected by mass spectrometry because MAPK8 targets both cJUN and JUND (253, 254). JUN S63 and S73 phosphorylation is also regulated by other MAPKs, including ERK1 (252). Topoisomerase 2α (TOP2A) S1393 phosphorylation is also a substrate of ERK1 (255) identified by mass spectrometry that was significantly downregulated after erdafitinib treatment with both cancer and CAF CM (Figure 6.2C-D) and so illustrates the on-target effect of erdafitinib in both CM types.

Moreover, AKT and MTOR are downstream signalling components of FGFR (251) and Luminex revealed the significant decrease in phosphorylation of

MTOR substrates, 70 KDa ribosomal protein S6 kinase (p70S6K) and ribosomal protein S6 (RPS6), with CAF CM after erdafitinib treatment (Figure 6.3B) and not with cancer CM (Figure 6.3A). However, these phosphosites were not detected by mass spectrometry and none of the MTOR substrates detected by mass spectrometry were significantly downregulated with erdafitinib treatment.

Both Luminex and mass spectrometry analysis reveal a decrease in GSK3 signalling after erdafitinib treatment where significant changes were observed with CAF CM. After erdafitinib treatment with CAF CM, Luminex detected the significant upregulation of inhibitory phosphorylation of GSK3A/B at S21 and S9, respectively (Figure 6.3B) whereas mass spectrometry identified the decrease in GSK3 substrate phosphorylation detected by mass spectrometry (Figure 6.2D), including uracil DNA glycosylase (UNG) (256), dihydropyrimidinase-related protein 3 (DPYSL3) (257) and histone acetyltransferase (KAT5) (258). Notably, a decrease in KAT5 phosphorylation was also detected by mass spectrometry with cancer CM after erdafitinib treatment (Figure 6.2C). Although this may suggest upregulated AKT signalling as GSK3 phosphorylation can be mediated by AKT and associated with preventing the inhibiting action of GSK3 on AKT signalling (259, 260), previous work from our lab group highlighted that GSK3B S9 phosphorylation is not consistently correlated with AKT S473 phosphorylation, a phosphosite critical for AKT activation, in cancer cells isolated from NSCLC patient pleural effusions (261). Moreover, GSK3 phosphorylation can be regulated by other kinases, such as protein kinase A (PKA) (260), and GSK3 also regulates signalling pathways. For instance, GSK3B targets RELB for degradation in the

NFKB signalling pathway (222) and mass spectrometry identified the increase in RELB expression with CAF CM after erdafitinib treatment (Figure 6.2B).

Corresponding with the significant downregulation of FGFR signalling with CAF CM after erdafitinib treatment, both mass spectrometry and Luminex revealed the significant inhibition G1/S progression due to the decrease in RB phosphorylation with CAF CM after erdafitinib treatment (Figure 6.2D and Figure 6.3B). Luminex also highlighted the increase in p21 expression with CAF CM after erdafitinib treatment (Figure 6.3B), which was not observed with cancer CM (Figure 6.3A). Furthermore, mass spectrometry detected the significant decrease in expression of proteins which are involved in DNA replication and G1/S cell cycle progression with CAF CM after erdafitinib treatment (Figure 6.2A). These include ubiquitin-conjugating enzyme E2 UBE2C, PCNA-associated factor (KIAA0101/PAF15), E3 ubiquitin ligase UHRF1 and CDK 1/4/6. This coincided with the downregulation of the cell division GOBP annotation from functional enrichment analysis of the significant differentially expressed proteins with CAF CM after erdafitinib treatment detected by mass spectrometry. In addition, EnrichR (139, 140) highlighted that the identified significant proteome changes with CAF CM after erdafitinib treatment by mass spectrometry are enriched with targets of cell cycle transcription factors, including MYC and MAX (158 and 127 proteins out of 737 significant differentially expressed proteins, respectively. Adjusted p values= $3x10^{-18}$ and $1x10^{-17}$, respectively).

As a result, the on-target drug mechanisms collectively demonstrate that CAF CM promotes H1792 to be more sensitive to erdafitinib.

CAF CM upregulates basal state FAK signalling which is downregulated with erdafitinib treatment implicating a potential sensitising mechanism

With CAF CM after erdafitinib treatment, Luminex revealed the downregulation of Y397 phosphorylation in FAK (Figure 6.3B), which suggests a decrease in its kinase activity and downstream signalling. Mass spectrometry did not detect FAK Y397 phosphorylation to validate this. FAK activation can be mediated by FGFR via SRC (262, 263) and so downregulation of FAK phosphorylation with CAF CM, but not with cancer CM, by Luminex may further highlight the greater inhibition of FGFR by erdafitinib with CAF CM. The effect of erdafitinib on FAK has not been reported, as far as we know.

Interestingly, FAK Y397 phosphorylation was upregulated with CAF CM compared to cancer CM at the basal state level (Figure 6.4). FAK has been reported to also regulate FGFR signalling and so it could be a potential mechanism of CAF CM mediated erdafitinib sensitivity. For instance, studies have proposed that FAK promotes fibroblast growth factor 2 (FGF2)-driven ERK phosphorylation due to the interaction between FGFR1 and integrin β3 in breast cancer (264) and FAK regulates FGFR expression and its downstream signalling in fibroblasts (265).

Supporting the possibility of CAF CM upregulating FAK signalling at the basal state level, secretome analysis (detailed in chapter 4) identified the enrichment of ECM components, such as COL1A1, in CAF CM (Figure 4.6A) and these proteins are known to bind to integrins and activate FAK (224).

Therefore, CAF CM may potentially upregulate FGFR signalling at the basal state level via FAK and sensitises H1792 to erdafitinib where treatment

abrogates the crosstalk between FAK and FGFR signalling. Assessing the co-localisation of FAK and FGFR in H1792 with CAF CM and direct assessment of FGFR kinase activity in H1792 with CAF CM would validate as to whether CAF CM promotes FAK and FGFR signalling at the basal state level.

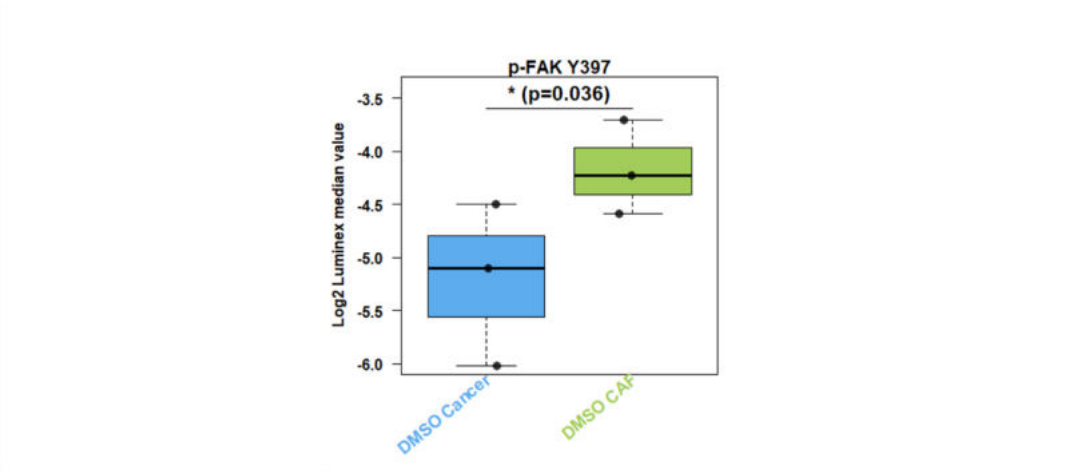


Figure 6.4 Focal adhesion kinase (FAK) phosphorylation in lung cancer H1792 cells with cancer or cancer-associated fibroblast (CAF) conditioned media (CM) at the basal state level (DMSO) Boxplot of FAK Y397 phosphorylation levels between the two CM types detected by an antibody-bead based assay (Luminex) where the median fluorescence intensity values were assessed. Paired t-test was undertaken to compare H1792 cells in CAF CM with cancer CM *= $p<0.05$

Erdafitinib impacts amino acid and lipid metabolism more with CAF CM compared to cancer CM

The greater sensitivity to erdafitinib with CAF CM revealed other global effects of the drug that are not reported since there are no (phospho)proteome studies on erdafitinib treated cells as far as we know. For instance, the most upregulated proteins with CAF CM after erdafitinib treatment are involved with amino acid and lipid metabolism (Figure 6.2B). These include apolipoprotein B (APOB), which binds to lipids (266), and sodium-coupled neutral amino acid transporter 2 (SLC38A2), phosphoserine aminotransferase (PSAT1) and aspartate aminotransferase (GOT1), which are involved in amino acid metabolism (267-269). Of these proteins, only GOT1 was significantly

increased with cancer CM after erdafitinib treatment but to a lesser degree compared to CAF CM, in line with the erdafitinib response (Figure 6.2A).

6.3.3 Characterising the mechanisms of CAF CM mediated 6MP resistance

Like erdafitinib, mass spectrometry revealed that the number of protein and phosphopeptide changes with 6MP treatment reflect the level of response where there were less significant changes ($p<0.05$) that are >2-fold with CAF CM compared to cancer CM (Figure 6.5A-D, Appendix Table 11-12). 210 proteins were differentially expressed after 6MP treatment with CAF CM whereas it was 705 proteins with cancer CM. 544 phosphopeptides had differential expression after 6MP treatment with CAF CM whilst it was 1345 phosphopeptides with cancer CM.

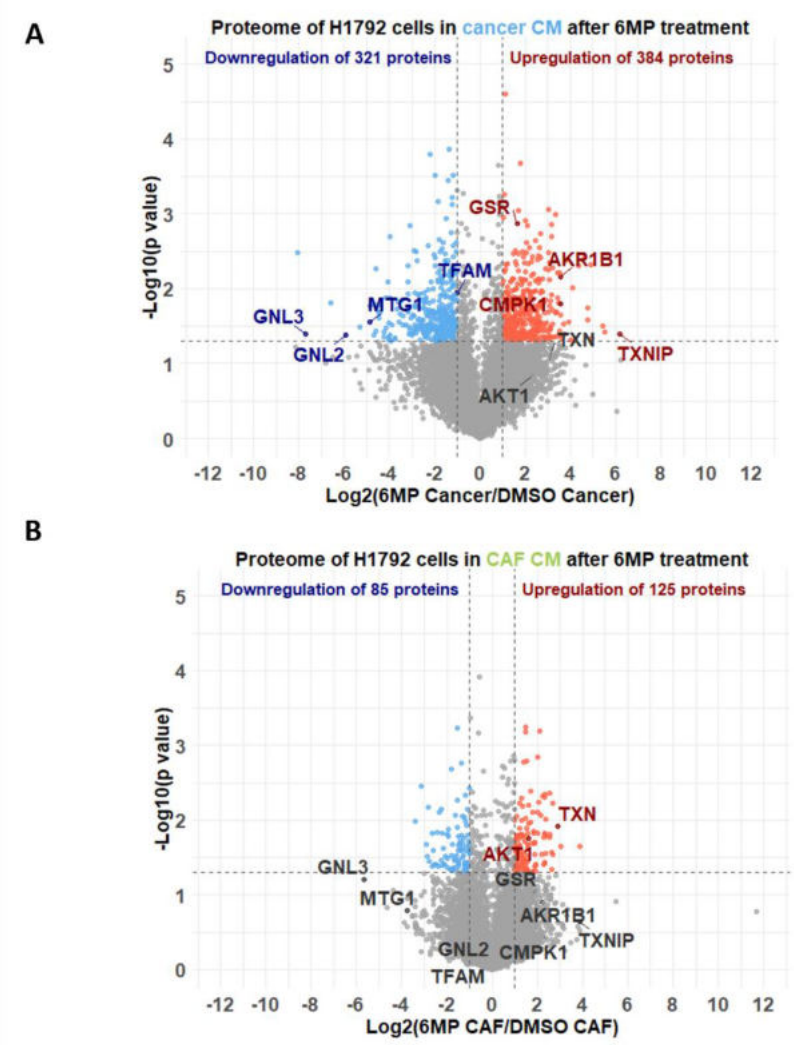
The downstream products of 6MP can inhibit purine synthesis enzymes, such as phosphoribosylpyrophosphate amidotransferase (PPAT) (270) or stop DNA replication and RNA transcription (270). Therefore, the lesser degree of 6MP response with CAF CM was also evident due to a lack of feedback loop with the inhibition of purine synthesis whilst with cancer CM, there was the enrichment of proteins associated with the nucleobase metabolic process annotations, such as cytidine/uridine monophosphate kinase 1 (CMPK1) (Figure 6.5A). Furthermore, proteins associated with ribosome biogenesis, rRNA processing and mitochondrial translation were not significantly affected with CAF CM after 6MP treatment whilst with cancer CM, there was the decrease in these proteins as a downstream effect of purine base pool depletion after 6MP treatment, such as guanine nucleotide binding protein-like

2/3 (GNL2/3), mitochondrial transcription factor A (TFAM) and mitochondrial ribosome associated GTPase 1 (MTG1) (Figure 6.5B).

CAF CM upregulates JAK, AKT and MEK signalling after 6MP treatment

With CAF CM after 6MP treatment, there was the upregulation of JAK, AKT and MAP2K1/MEK signalling, which may facilitate resistance. This is supported by kinase enrichment analysis of the significant phosphoproteome changes with CAF CM after 6MP treatment, which predict the upregulation of these kinases (p values= 0.005, 0.024 and 0.001, respectively). A heatmap of the significant changes in these signalling pathways is summarised in Figure 6.5E. Although slight upregulation of JAK, AKT and MAP2K1/MEK substrate phosphorylation was also observed with cancer CM after 6MP treatment, these phosphosite changes were not significant.

STAT3 Y705 phosphorylation is a target of JAK2, which promotes STAT3 activation (271, 272), and this phosphosite significantly increased with CAF CM after 6MP treatment (Figure 6.5D). EnrichR (139, 140) also revealed a significant enrichment of STAT3 target genes (23 proteins out of 358 significant differentially expressed proteins. Adjusted p value= 0.01) from the identified significant proteome changes induced with CAF CM and 6MP treatment.


A
Proteome of H1792 cells in cancer CM after 6MP treatment
Downregulation of 321 proteins
Upregulation of 384 proteins
-Log10(p value)
Log2(6MP Cancer/DMSO Cancer)
GSR
AKR1B1
TFAM
MTG1
CMPK1
GNL3
TXN
GNL2
TXNIP
AKT1
B
Proteome of H1792 cells in CAF CM after 6MP treatment
Downregulation of 85 proteins
Upregulation of 125 proteins
-Log10(p value)
Log2(6MP CAF/DMSO CAF)
TXN
AKT1
GNL3
GSR
MTG1
AKR1B1
TXNIP
GNL2
CMPK1
TFAM

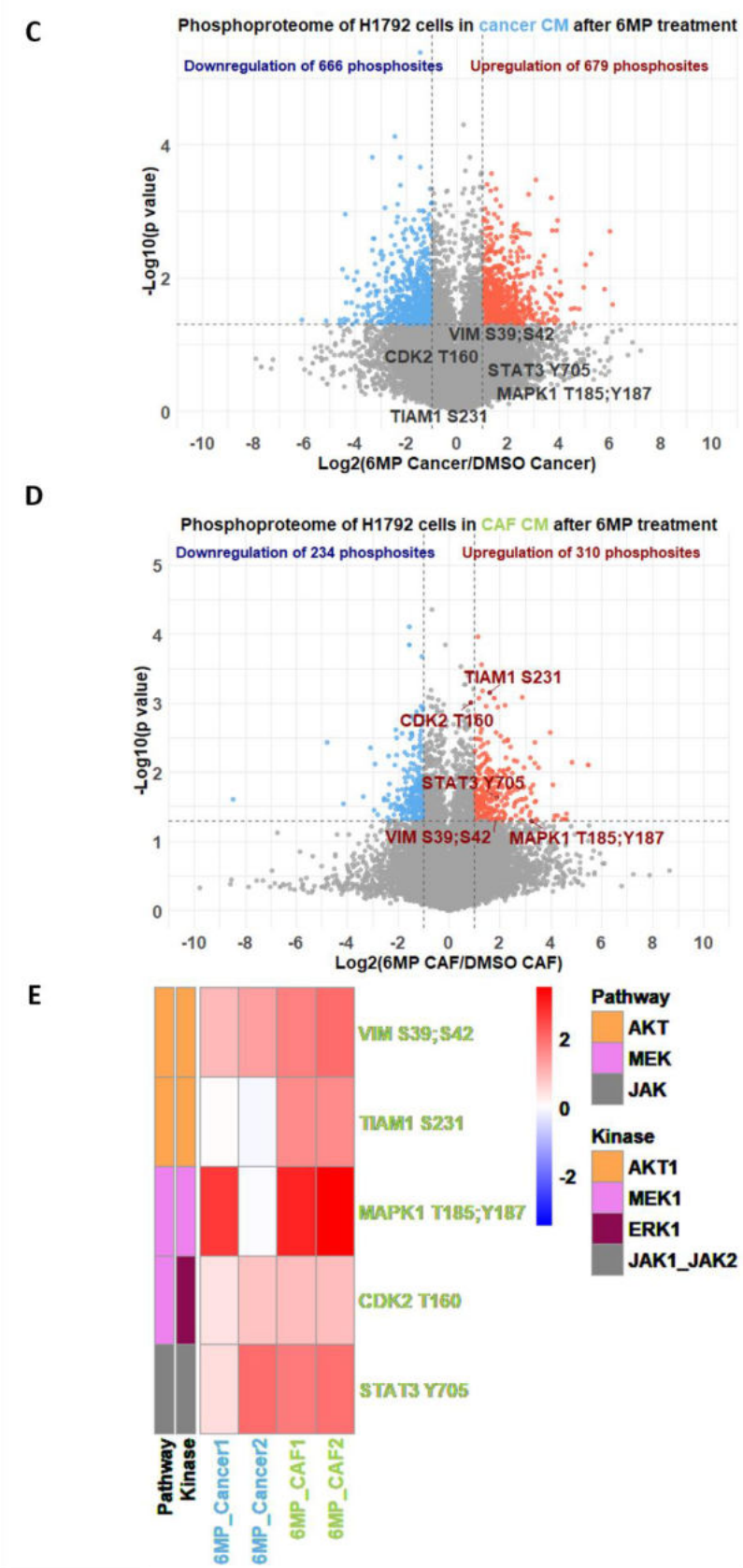


Figure 6.5 Differential (phospho)proteome of lung cancer H1792 cells in cancer or cancer-associated fibroblast (CAF) conditioned media (CM) with 3xGi50 6-mercaptopurine (6MP) treatment Volcano plots of the **(A-B)** full proteome profiles and **(C-D)** phosphoproteome profiles in H1792 cells in cancer or CAF CM exposed to 3xGi50 6MP

using one-sample t-test. **(E)** Heatmap of the key phosphorylation changes with cancer or CAF CM after 6MP treatment compared to DMSO (values=log_2(drug/DMSO)). Green=significant change with CAF CM only.

Furthermore, AKT1 expression itself significantly increased with CAF CM after 6MP treatment and this coincided with the significant upregulation of the phosphosite targets: T-cell lymphoma invasion and metastasis 1 (TIAM1) S231 and vimentin S39 phosphorylation. These phosphorylation modifications increase the protein stability and are associated with facilitating processes in cancer development, such as cell proliferation and invasion (273, 274).

For MAP2K1/MEK, its downstream effector MAPK1/ERK2 (275) had significant increased T185/Y187 phosphorylation with CAF CM after 6MP treatment. Downstream of MAPK1/ERK2, there is also increased T160 phosphorylation in its target substrate CDK2 (276) but it should be noted that this significant increase was only by 1.8-fold.

CAF CM upregulates antioxidant thioredoxin expression after 6MP treatment

One of the most significantly upregulated proteins with CAF CM after 6MP was thioredoxin (TXN), which is an antioxidant protein (Figure 6.5B). This is in complete contrast to cancer CM where oxidative stress mediator thioredoxin interacting protein (TXNIP) was the protein with the highest significant increase in expression after 6MP treatment (Figure 6.5B) and TXNIP inhibits TXN (277, 278).

TXN expression is known to be positively regulated by various transcription factors, including nuclear factor E2-related factor 2 (NRF2) (279), and NRF2 expression and nuclear localisation can be mediated by oncogenic KRAS/BRAF activity and PI3K/AKT signalling (280, 281). Although NRF2 was

not detected by mass spectrometry, both TXN and NRF2 are STAT3 target genes defined by the consensus datasets of ENCODE and ChEA in EnrichR (139, 140). As TXN expression is a downstream product of STAT3, AKT and ERK signalling, increased TXN expression corresponds to the potential upregulated activity of these pathways with CAF CM after 6MP treatment.

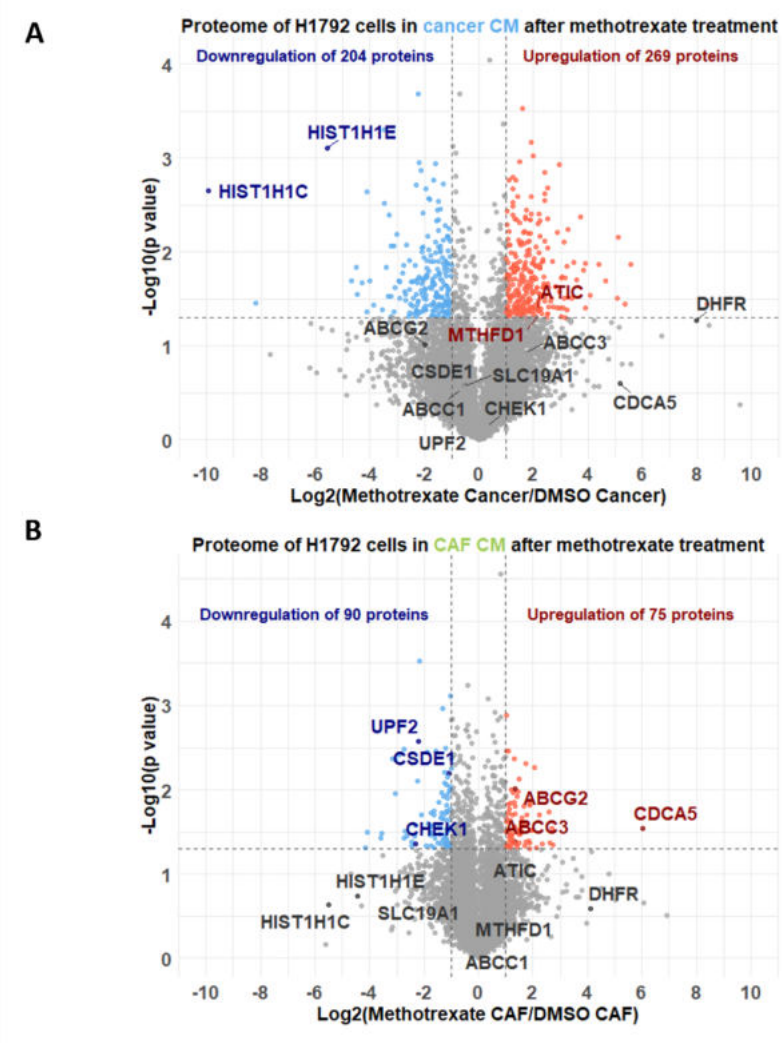
The lower levels of oxidative stress after 6MP treatment with CAF CM is demonstrated by a lack of enrichment in proteins annotated with reactive oxygen species response (ROS) whereas, with cancer CM, there was an enrichment. For instance, glutathione reductase (GSR) and aldo-keto reductase family 1 member B1 (AKR1B1), as well as TXNIP, are examples of ROS response proteins that were upregulated with cancer CM after 6MP treatment (Figure 6.5A). Therefore, 6MP resistance may be partly influenced by the CAF CM driven signalling which facilitates cell damage protection by antioxidant expression.

6.3.4 Characterising mechanisms of CAF-mediated methotrexate resistance

Similar to erdafitinib and 6MP, mass spectrometry revealed that the number of protein and phosphopeptide changes with methotrexate treatment reflect the level of response where there were less significant changes ($p<0.05$) that are >2-fold with CAF CM compared to cancer CM (Figure 6.6A-D, Appendix Table 13-14). After methotrexate treatment, 165 proteins and 797 phosphopeptides were differentially expressed with CAF CM whilst with cancer CM, there was the differential expression of 473 proteins and 1089 phosphopeptides.

Methotrexate is an anti-folate metabolite and it primarily targets dihydrofolate reductase (DHFR), a critical one-carbon metabolism component (282), and polyglutamatation of methotrexate causes the drug to inhibit other one-carbon metabolism enzymes, including 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP cyclohydrolase (ATIC) (282). The lower methotrexate response with CAF CM compared to cancer CM was evident because the positive feedback mechanism with drug treatment was only observed with cancer CM where there was the upregulation of ATIC and other one-carbon metabolism enzymes, such as C-1-tetrahydrofolate synthase (MTHFD1) (Figure 6.6A). Moreover, with CAF CM, there was the downregulation of proteins annotated with mRNA catabolic process after methotrexate treatment, such as up-frameshift suppressor 2 homolog (UPF2) and cold shock domain containing E1 (CSDE1), indicating the maintenance of mRNA integrity and so the bases are not recycled in response to methotrexate.

There was no significant change in methotrexate target DHFR expression with either CM types after methotrexate treatment or between the two CM types at the DMSO level. Therefore, modulation of DHFR expression is not a mechanism of resistance by CAF CM.



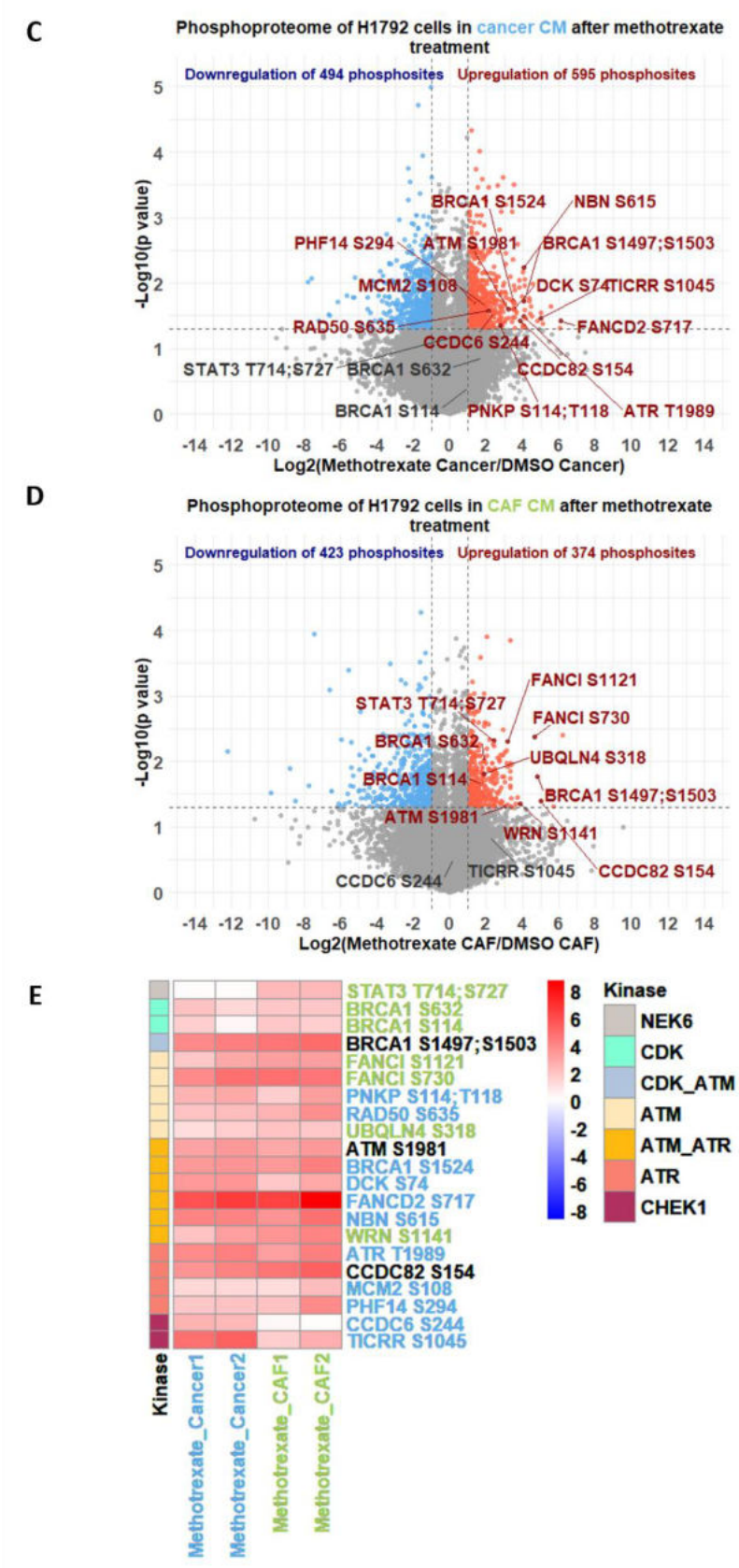


Figure 6.6 Differential (phospho)proteome of lung cancer H1792 cells in cancer or cancer-associated fibroblast (CAF) conditioned media (CM) with 3xGi50 methotrexate treatment Volcano plots of the **(A-B)** full proteome profiles and **(C-D)** phosphoproteome profiles in H1792 cells in cancer or CAF CM exposed to 3xGi50 methotrexate using one-

sample t-test. **(E)** Heatmap of the key phosphorylation changes with cancer or CAF CM after methotrexate treatment compared to DMSO (values=$\log_2$(drug/DMSO)). Black=significant change with cancer and CAF CM. Blue=significant change with cancer CM only. Green=significant change with CAF CM only.

Methotrexate results in a less pronounced DNA damage response with CAF CM compared with cancer CM

Ataxia telangiectasia and RAD3 related (ATR) and ataxia telangiectasia and mantle cell lymphoma (ATM) are critical kinases in the DNA damage response pathways (283). A heatmap of the significant signalling changes with cancer or CAF CM after methotrexate treatment detected by mass spectrometry is summarised in Figure 6.6E.

Both CM types after methotrexate treatment had increased phosphorylation of ATR and ATM substrates, which is supported by the significant upregulated kinase activity (p value=0.001) predicted by kinase enrichment analysis of the significant phosphoproteome changes. Not all the phosphorylation changes in the ATR and ATM substrates were significant ($p<0.05$) for both CM types. The commonly significant upregulated phosphosites between the CM types include breast cancer type 1 susceptibility protein (BRCA1) S1497/S1503, ATM S1981 and coiled-coil domain-containing protein 82 (CCDC82) S154.

The less pronounced DNA damage response caused by methotrexate with CAF CM compared to cancer CM is highlighted by the significant decreased expression of checkpoint kinase 1 (CHEK1/CHK1), which acts downstream of ATR (284), with CAF CM after methotrexate treatment (Figure 6.6B). Also, phosphosites targeted by CHEK1 were not significantly upregulated by methotrexate with CAF CM but with cancer CM, there was significant increased phosphorylation of CHEK1 targets (Figure 6.6C), including coiled-coil domain containing 6 (CCDC6) and TOPBP1 interacting checkpoint and

replication regulator (TICRR) (285). This coincided with the significant enrichment of CHEK1 activity (p value=0.04) predicted by kinase enrichment analysis of the significant phosphoproteome changes by methotrexate with cancer CM.

With CAF CM after methotrexate treatment, there was also significant upregulation of S114 and S632 phosphorylation in BRCA1 (Figure 6.6D), which is mediated by CDK1/2/4 (286, 287), but this was not observed with cancer CM (Figure 6.6C). This may be associated with the lower methotrexate response and so DNA damage response with CAF CM as S114 is critical for fork protection (286) and S632 inhibits BRCA1 from binding to certain promoters (287). BRCA1 both activates or represses transcription of various genes (288-290) and the potential difference in BRCA1 transcriptional activity between the two CM types is shown with histone proteins (HIST1HE and HIST1HC) for instance, which are BRCA1 target genes defined by the consensus datasets of ENCODE and ChEA in EnrichR (48, 49). These histone proteins were one of the most downregulated proteins with cancer CM after methotrexate treatment (Figure 6.6A) whereas it was not significantly downregulated with CAF CM after methotrexate treatment (Figure 6.6B).

Therefore, the ATR/CHEK1 and ATM signalling activity and regulation of BRCA1 phosphorylation collectively illustrate the potential lower DNA damage response with CAF CM, which corresponds with the response to methotrexate.

CAF CM mediates STAT3 phosphorylation changes in response to methotrexate

With CAF CM, there was an increase in STAT3 phosphorylation at T714 and S727 after methotrexate treatment (Figure 6.6D) and cell division cycle associated 5/sororin (CDCA5), a STAT3 target gene defined by EnrichR (139, 140), was the most upregulated protein with CAF CM after methotrexate treatment (Figure 6.6B). STAT3 S727 is known to be critical in STAT3 transcriptional activity (291-293) but studies have proposed that this phosphosite also promotes STAT3 nuclear export, where the cycles of STAT3 activation/inactivation is important in regulating the dynamics of certain IL-6 target genes at specific timepoints (294, 295). EnrichR (139, 140) revealed significant enrichment of STAT target genes with CAF CM after methotrexate treatment (26 proteins out of 468 significant differentially expressed proteins. Adjusted p value=0.03).

STAT3 S727 phosphorylation can be mediated by NIMA Related Kinase 6 (NEK6) (293), which has been predicted to be upregulated in our kinase enrichment analysis (p value=0.021). CAF-enriched WNT5B identified from our basal state secretome analysis in chapter 4 (Figure 4.6L) may facilitate NEK6 activation and so STAT3 phosphorylation changes because NEK6 can be regulated by the WNT non-canonical pathway via cell division cycle 42 (CDC42) (296, 297). Therefore, as STAT3 phosphorylation and CDCA5 expression were not significantly affected with cancer CM after methotrexate treatment (Figure 6.6A and C), alterations in STAT3 signalling could be one of the potential pathways partly facilitating cell survival with CAF CM in response to methotrexate.

CAF CM may decrease methotrexate accumulation

The cytotoxicity of methotrexate depends on its active transport and retention in cancer cells. The levels of reduced folate carrier SLC19A1/RFC1 expression, which primarily transports methotrexate into cells (282), was not statistically different in H1792 cell exposed to methotrexate in CAF or cancer CM (Figure 6.6A-B). Folate receptors and proton coupled folate transporter (SLC46A1) also facilitate methotrexate transport (298, 299) but these proteins were not detected by mass spectrometry so it is unknown whether these proteins contribute to the differential methotrexate response by CAF CM.

Alternatively, ABC protein transporter ABCG2/BCRP overexpression is known to mediate methotrexate resistance through exporting the drug (300-302) and its expression increased with CAF CM after methotrexate treatment (Figure 6.6B). It is noted that other ABC transporters, such as ABCC1/MRP1 and ABCC3/MRP3 (303), are known to facilitate methotrexate resistance but ABCG2 is the only ABC transporter to increase significantly with only CAF CM after methotrexate treatment and not in cancer CM.

6.3.5 Assessing the role of ABCG2 in CAF mediated methotrexate resistance

As increased ABCG2 expression was identified after methotrexate treatment with CAF CM from our (phospho)proteome analysis and ABCG2 is reported to be associated with methotrexate treatment, H1792 was treated with ABCG2 specific inhibitor (KO143) or dual ABCG2 and ABCB1/P-gp inhibitor (elacridar) in combination with methotrexate treatment (Figure 6.7A-B).

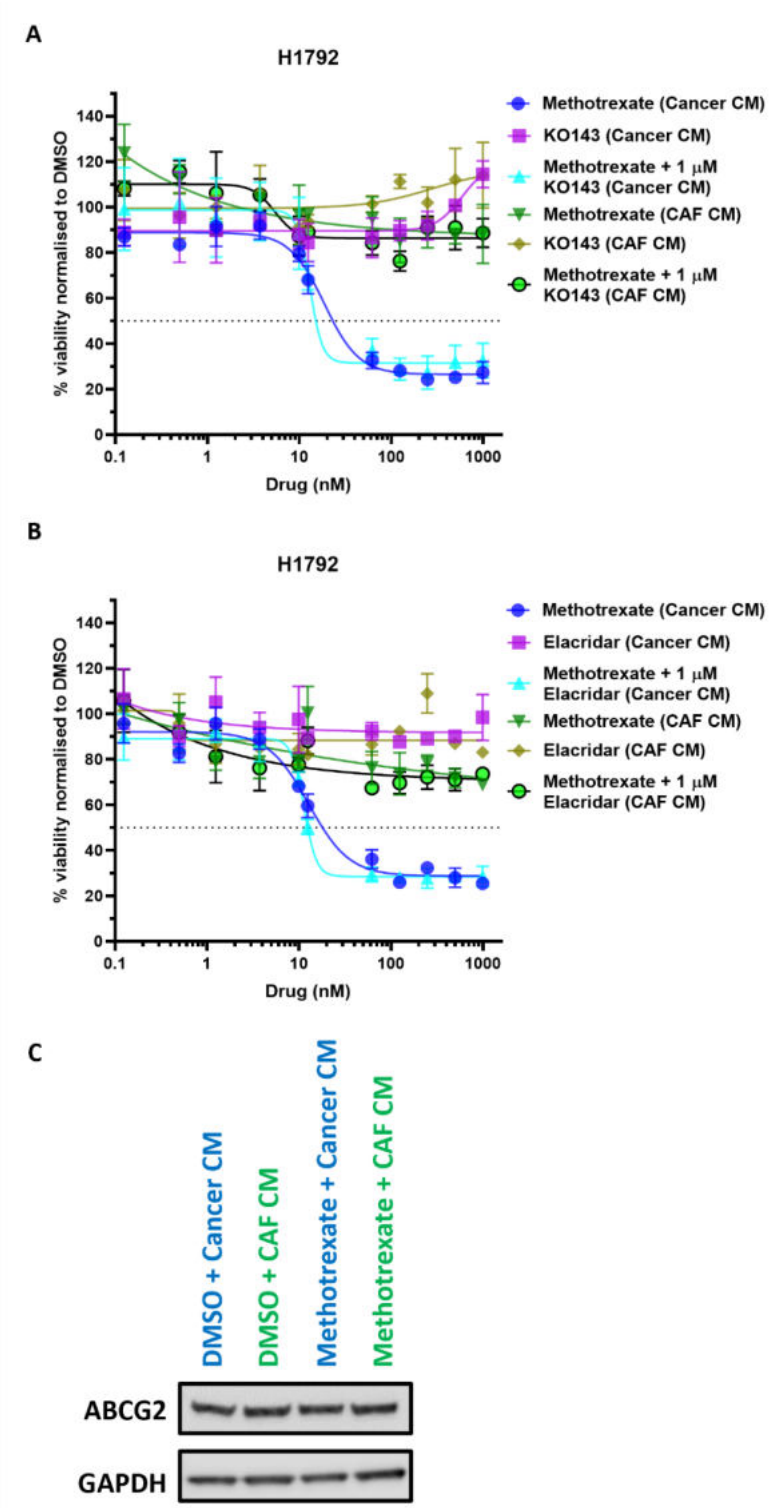


Figure 6.7 The role of ATP binding cassette subfamily G member 2 (ABCG2/BCRP) on methotrexate response in lung cancer H1792 cells Conditioned media (CM) was harvested from cancer cells and CAFs after 48 hour incubation. 24 hours after seeding the cells in the appropriate media, cells were treated with 11 serial dilutions of ABCG2 inhibitor or methotrexate alone or methotrexate and 1 μM ABCG2 inhibitor and cell viability was assessed 72 hours post-treatment using CellTiter Blue. **(A)** Specific ABCG2 inhibitor KO143 and **(B)** dual ABCG2 and ABCB1/P-gp inhibitor elacridar were used. **(C)** Western blot probing for ABCG2 expression in H1792 cells with 3xGi50 methotrexate treatment in cancer or CAF CM. Glyceraldehyde 3-phosphate dehydrogenase (GAPDH) was used as a loading control. Images are presentative of three independent experiments.

However, the treatment of either ABCG2 inhibitors did not impact methotrexate response in H1792 cells with CAF or cancer CM. This suggests that the increase of ABCG2 expression observed in our (phospho)proteome analysis was not a critical factor in CAF CM mediated methotrexate resistance.

Moreover, probing ABCG2 expression by western blotting did not show any dramatic change in expression with methotrexate treatment in CAF CM. The lack of distinct detection levels with immunoblotting may be due to high antibody affinity to ABCG2 but for the mass spectrometry analysis, only ~2.5-fold change was observed with ABCG2 (Figure 6.7C) and so it may not be sufficient to contribute to methotrexate resistance.

6.4 Discussion

Erdafitinib is a FGFR inhibitor (250) whilst methotrexate and 6MP are anti-metabolites, which disrupts one-carbon and purine metabolism (270, 282). CAF CM mediated erdafitinib sensitivity and resistance to methotrexate and 6MP were identified in NSCLC H1792 from our drug screen analysis using CM (Chapter 5). NSCLC H1792 was used as a model to investigate the molecular changes at the phosphoprotein/protein levels with CAF CM after drug treatment as differential drug responses were seen consistently with this cell line (Chapter 5) and H1792 had the greatest number of significant changes in the full proteome and phophoproteome with CAF CM compared to cancer CM from the basal state (phospho)proteome analysis (Chapter 4).

The phosphoprotein and protein changes detected 24 hours after treatment represent the first point of reference in the global impact of erdafitinib, 6MP and methotrexate response with CAF CM and it illustrates some new sensitivity and resistance profiles where more timepoints can further the

understanding on the CAF CM mediated drug response mechanism. Notably, DepMap details the top correlated gene expression with drug sensitivity (148) but these top 5 genes that encode for functional proteins for erdafitinib, 6MP and methotrexate were not detected by mass spectrometry or did not have significant changes with CAF CM at the basal state level (DMSO) or after drug treatment.

For erdafitinib, the top 5 genes related to erdafitinib response were *GLI1*, transmembrane protein 35A (*TMEM35A*), bone morphogenetic protein receptor type 1A (*BMPR1A*), *DCN* and WNT inhibitory factor 1 (*WIF1*), where all of which were not detected by mass spectrometry.

For 6MP, the top 5 correlated genes with 6MP response were regulator of chromosome condensation 1 (*RCC1*), serine incorporate 3 (*SERINC3*), ribosomal protein S9 (*RPS9*), glutamate metabotropic receptor 4 (*GRM4*) and gem nuclear organelle associated protein 5 (*GEMIN5*) where RCC1 and RPS9 were detected by mass spectrometry but there were no significant changes with CM type at the basal state level or after drug treatment.

For methotrexate, the top 5 genes correlating to methotrexate response were Wiskott-Aldrich syndrome protein actin nucleation promoting factor (*WAS*), IKAROS family zinc finger 1 (*IKZF1*), protein tyrosine phosphtase non-receptor type 7 (*PTPN7*), RAS protein activator like 3 (RASAL3) and *CD53* where none of these were detected by mass spectrometry.

6.4.1 CAF mediated erdafitinib sensitivity

Figure 6.8 summarises the key significant proteome and phosphorylation changes in H1792 with CAF CM after erdafitinib treatment. The (phospho)proteome analysis from both mass spectrometry and Luminex demonstrated the greater reduction in downstream FGFR signalling (e.g JNK and MTOR) in H1792 with CAF CM after erdafitinib treatment compared to cancer CM, which corresponds to the CAF CM mediated erdafitinib sensitivity. It could be hypothesised that this is driven by FAK because there was a higher baseline level of phosphorylated FAK in H1792 cells exposed to CAF CM compared to cancer CM detected by Luminex. Also, higher levels of ECM components were found in the CAF CM compared to the cancer CM (detailed in Chapter 4) and ECM components are known to bind to integrins and activate FAK (224). Further investigation involving pharmacological or genetic (siRNA or CRISPR) manipulation of FAK signalling could reveal if it abrogates CAF CM mediated increased mitogenic signalling at the basal state level and subsequent erdafitinib sensitivity. Better understanding on the potential role of CAFs in mediating drug sensitivity may help widen the use of FGFR inhibitors, including erdafitinib, which is currently used predominately for the treatment of cancer patients which harbour FGFR alterations (304, 305).

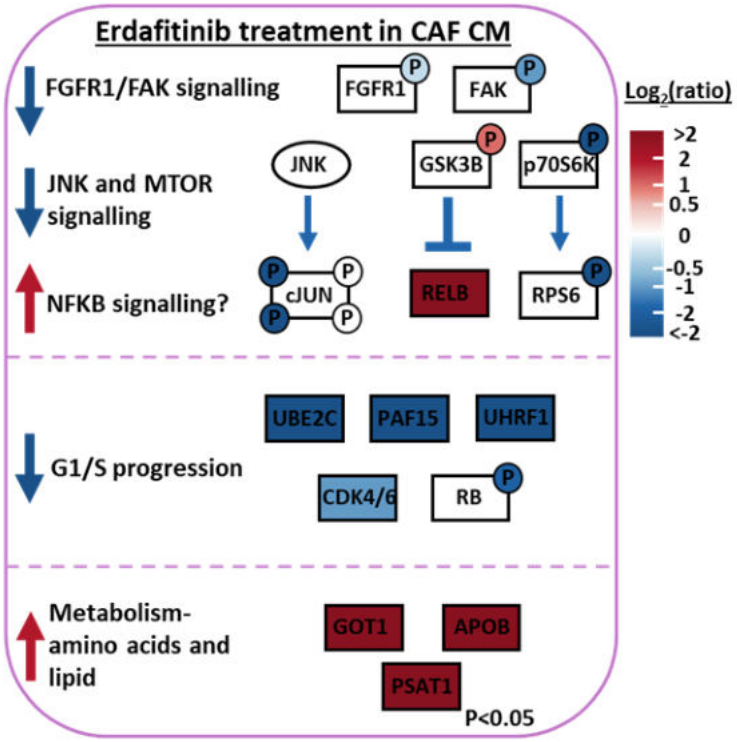


Figure 6.8 The key significant (phospho)proteome changes in lung cancer H1792 cells with cancer-associated fibroblast (CAF) conditioned media (CM) after erdafitinib treatment Colours represent log_2 fold change between drug and DMSO treatment where red= upregulation, blue= downregulation. The proteins in oval shapes are kinases that were highlighted from enrichment analysis but had no significant changes in its own protein expression.

6.4.2 CAF mediated 6MP resistance

Figure 6.9 summarises the key significant phosphoprotein and protein changes in H1792 with CAF CM after 6MP treatment. 6MP resistance with CAF CM may be mediated by changes in the signalling network, including the upregulation of JAK, MEK and AKT signalling. This could be of clinical relevance given that there are many approved drugs that target the MEK and AKT pathways, such as MEK inhibitor trametinib and MTOR inhibitor everolimus. Various receptors activate these signalling pathways so it would be difficult to hypothesise which CAF-enriched protein may be mediating this effect but a CRISPR or RNA interference screen on the receptors in cancer cells could systematically determine the fundamental receptors for the CAF

CM mediated 6MP resistance and can be associated with the basal state secretome characterisation of the CAF CM (Chapter 4).

The increased signalling with CAF CM after 6MP treatment may facilitate cell proliferation and upregulate antioxidant TXN expression to promote resistance. This is in contrast to cancer CM after 6MP treatment where there was an increase in oxidative stress mediators and so measuring ROS levels in the cells with the two different CM types after 6MP treatment by a fluorescent probe, such as 2', 7'-dichlorodihydrofluorescein diacetate, may elucidate whether CAF CM minimises ROS generation and so cellular damage as a one of the resistance mechanisms.

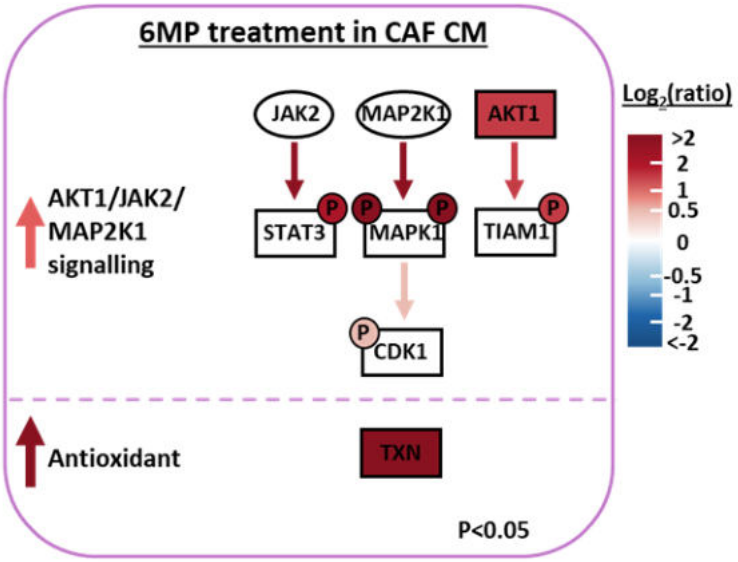


Figure 6.9 The key significant (phospho)proteome changes in lung cancer H1792 cells with cancer-associated fibroblast (CAF) conditioned media (CM) after 6MP treatment Colours represent log_2 fold change between drug and DMSO treatment where red= upregulation, blue= downregulation. The proteins in oval shapes are kinases that were highlighted from enrichment analysis but had no significant changes in its own protein expression.

6.4.3 CAF mediated methotrexate resistance

Unlike erdafitinib and 6MP, the (phospho)proteome on methotrexate response in cancer cells alone has been profiled, more specifically in sensitive and resistant choriocarcinoma (cancer from the uterus/placenta) cell lines (306,

307). Georgiou *et al* found that resistance is associated with an increase in CDK4 expression and ATR activity and so proposed that CDK4 or ATR inhibitors could sensitise chloriocarcinoma to methotrexate. On the other hand, Wu *et al* associated increased ribosomal protein S6 kinase α-3 (RSK2) activity with methotrexate resistance. Georgiou *et al* and Wu *et al* used long-term methotrexate exposure and did not consider the tumour microenvironment so the use of different models would not be comparable to our (phospho)proteome analysis and differences in the mechanism of action would be inevitable. Nevertheless, Georgiou *et al* identified a decrease in aurora kinase B (AURKB) phosphorylation in the resistant chloriocarcinoma cell lines and associated it with a decrease in the kinase activity. Although AURKB phosphorylation was not detected by the mass spectrometer, downregulation in AURKB kinase activity was predicted in our enrichment analysis in the H1792 cells and may be a mechanism by which CAF CM promotes methotrexate resistance.

Figure 6.10 summarises the key significant phosphoproteome and proteome changes in H1792 with CAF CM after methotrexate treatment. Our (phospho)proteome analysis revealed that with CAF CM after methotrexate treatment, there was the upregulation of ABCG2, which is known to facilitate resistance (300-302). WNT5A is thought to regulate ABCG2 expression (228) and its paralog WNT5B was identified as a CAF-enriched secreted protein in our basal state secretome analysis (Chapter 4) so CAF-enriched WNT5B upregulating ABCG2 was one hypothetical resistance mechanisms. However, inhibition of ABCG2 with commercially available tools did not sensitise H1792 with CAF CM to methotrexate and differential ABCG2 expression was not

evident with immunoblotting. Thus, ABCG2 upregulation by CAF CM is unlikely to drive methotrexate resistance in my experiments.

Alternatively, methotrexate resistance with CAF CM could be due to alterations in signalling pathways, such as increased phosphorylation in STAT3. Targeting the STAT3 pathway using various inhibitors, such as STAT3 inhibitor TT1-101 (308), or by genetic manipulation could elucidate the importance of STAT3 signalling in facilitating methotrexate resistance with CAF CM.

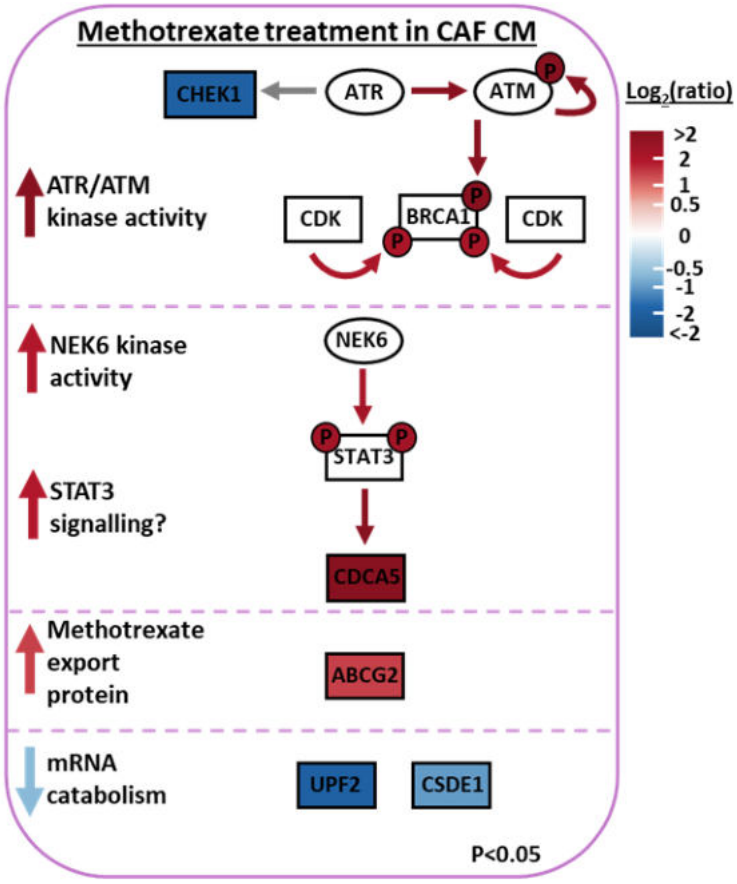


Figure 6.10 The key significant (phospho)proteome changes in lung cancer H1792 cells with cancer-associated fibroblast (CAF) conditioned media (CM) after methotrexate treatment Colours represent log_2 fold change between drug and DMSO treatment where red= upregulation, blue= downregulation. The proteins in oval shapes are kinases that were highlighted from enrichment analysis but had no significant changes in its own protein expression.

In conclusion, this experimental approach in my project allowed the identification of CAF-derived secreted proteins from the CM samples and these were associated with potential CAF-mediated (phospho)proteome changes and drug response in *KRAS* mutant-cancer cells. This data-driven project led to the characterisation for the first time a snapshot of the differential 6MP, methotrexate and erdafitinib response in *KRAS* mutant-NSCLC H1792 cells incubated in CAF or cancer CM, which has been prioritised as the most consistent and highly ranked hits from a panel of 97 anti-cancer drugs. Since the top ranked genes defined as important to erdafitinib, 6MP and methotrexate sensitivity in DepMap (148) were not detected or significantly affected by drug treatment or CM type, our (phospho)proteome analysis reveals some new sensitivity and resistance profiles. This highlights that the assessment of gene expression and phosphoprotein/protein expression profiles provides different aspects in explaining the rationale behind drug sensitivity/resistance.

Therefore, the use of (phospho)proteomic approaches, alongside the incorporation of the tumour microenvironment, can complement the genetic approaches and identify new insights into tackling drug resistance in the clinic. Further validation on the potential rationale behind the lung CAF CM mediated drug response highlighted by our (phospho)proteome analysis could reveal targets that could be exploited for future cancer therapeutic strategies, including *KRAS* mutant-cancers.

Chapter 7 Discussion and future work

KRAS is commonly mutated in solid tumours with high mortality rates but conventional treatments are often met with resistance (10). The tumour microenvironment forms a significant portion of the tumour mass and it is thought that external stimuli is fundamental in sustaining oncogenic KRAS activity (64-66). CAFs are one of the most abundant stromal cells but understanding how CAFs interact with *KRAS* mutant-cancer cells from different tissue types and affect drug response could provide insights into therapeutic strategies to overcome resistance.

The overarching focus for my project was to investigate how CAF secreted proteins may affect drug response in *KRAS* mutant-cancer cell lines from colorectal, lung and pancreatic. I conducted a screen of 97 anti-cancer drugs to determine what drugs are modulated by CAFs. Cell culture media were harvested from the different cell lines (cancer cells or CAFs) and were used to systematically define and functionally characterise the differentially secreted proteins between CAFs and *KRAS* mutant-cancer cells that could be associated with the observed drug response and global changes in *KRAS* mutant-cancer cell signalling detected by mass spectrometry.

7.1 Defining CAF features in comparison to *KRAS* mutant-cancer cells

The main challenge with studies involving CAFs is the lack of extensive and consistent definition of CAFs between studies. This can be attributed to a lack of CAF-specific markers and the frequent use of single markers, in particularly ACTA2/α-SMA, to characterise CAFs despite its variable expression (121-123). Moreover, the growing appreciation for different CAF subtypes (121, 122, 126-131) and the use of different experimental models may further cause

disparities between studies. Thus, it is critical to provide transparency on the CAF cell line models used and our basal state proteomic analysis by mass spectrometry reveals common protein signatures specifically represented in three CAF cell line models as compared to 9 cancer cell lines, which provides candidate novel stromal markers (Chapter 3).

Given the contractile ability and high expression of myCAF features, including ACTA2/α-SMA and FAP, it is likely that our CAF cell line models are of the conventional myofibroblastic subtype (myCAF). These are representative features of CAFs grown on plastic, which was the approach used, as opposed to CAFs in Matrigel where inflammatory subtype features are induced (121). Our deep quantitative analysis of 9460 proteins by mass spectrometry revealed that the proteome profile of CAFs were distinct from the cancer cells and the CAF-enriched or -depleted proteins seem more universal across the three CAF cell line models as opposed to tissue-specific but a wider panel of CAF cell lines is required to further investigate potential tissue-specific CAF markers. Nevertheless, this corresponds to the consensus on the defined CAF subtypes across different tumour tissue type studies (122, 127-130).

As well as identifying known myCAF markers, our basal state proteome analysis also revealed potential stromal markers since HSPB6 and PTGS1 were highly enriched in the CAF cell line models compared to the cancer cell lines. Promisingly, our IHC analysis of the patient tumour samples demonstrated high expression in the stroma compared to the epithelium, which corroborates our mass spectrometry analysis. However, these proteins had higher expression in the FAP negative stroma and this could be due to differences in our model systems but perhaps HSPB6 and PTGS1 expression

is ubiquitous across mesenchymal stromal cells with higher expression in those with low FAP expression.

Knockdown of HSPB6 or PTGS1 by siRNA was found not to affect the contractile activity of our CAF cell line models studied but their role in the observed effects of CAF secreted protein on signalling and drug response in *KRAS* mutant-cancer cells were not studied and may have led to interesting results. For instance, HSPB6 is thought to have a role in protein secretion in non-cancer cells, such as IL-6 in cardiomyocytes which drives myofibroblast activation during cardiac dysfunction (174) and so whether HSPB6 regulates the CAF secretome could be a follow-up study.

7.2 CAF secreted proteins affect signal transduction and drug response differently between *KRAS* mutant-cancer cell lines

Basal state secretome analysis by mass spectrometry validated CAFs as a major source of secreted proteins because the majority of the differentially expressed secreted proteins (200 out of 214 proteins) were CAF-enriched (Chapter 4). This corresponds with the high expression of proteins associated with N-glycosylation in CAFs compared to the cancer cells from the basal state proteome analysis (Chapter 3). Some of the highly expressed proteins in the CAF secretome compared to the cancer secretome, such as COL1A1, IGFBP5/7 and FSTL1, are known CAF markers (122, 152, 161, 199, 200) but WNT5B was identified as CAF-enriched and is a relatively understudied WNT factor in CAF research. Collectively, the basal state proteome and secretome data from my thesis provides a rich resource for future drug discovery and drug screen studies to explore cancer and CAF targets and biomarkers.

Differential phosphoproteome and proteome analysis were conducted on cancer cells cultured in CAF or cancer CM (Chapter 4) to characterise the contribution of the secretome on signalling and proteome modulation. No consistent changes were observed across all 9 *KRAS* mutant-cancer cell lines and so two cell lines (NSCLC H1792 and pancreatic cancer MIAPACA2) with maximal changes in the phosphoproteome and proteome were chosen for in-depth analysis. Notably, CAF CM on H1792 increased the expression of oncoproteins (e.g MYC) and proteins involved with DNA replication (e.g DNA polymerase subunits), which coincides with the enrichment of CDK activity.

To further functionally characterise the impact of the CAF secretome, a drug screen was run in 9 *KRAS* mutant-cancer cells grown in CAF or cancer CM (Chapter 5). The screen included 97 chemotherapeutic and targeted therapy agents that are clinically approved or being tested in clinical trials. No drugs had the same differential response with CAF CM across all 9 *KRAS* mutant-cancer cell lines, reflecting the varying effect of CAF CM on the (phospho)proteome at the basal state level (Chapter 4). The most consistent CAF CM differential drug responses include resistance to methotrexate and 6MP and sensitivity to FGFR inhibitor erdafitinib, which were all observed in NSCLC H1792.

7.3 CAF-mediated resistance to methotrexate and 6MP and sensitivity to erdafitinib in lung cancer H1792 cells

The mechanism of CAF CM mediated erdafitinib sensitivity and resistance to methotrexate and 6MP were further explored in H1792 using (phospho)proteomics. (Phospho)proteome analysis of the drug treated H1792 cells in CAF CM compared to cancer CM validates our observations on the

CAF CM mediated drug response due to the protein and phosphorylation changes corresponding to the drug efficacy (Chapter 6).

With CAF CM mediated erdafitinib sensitivity in H1792, antibody-bead based assays (Luminex) highlighted the upregulation of FAK phosphorylation with CAF CM compared to cancer CM at the basal state level (DMSO), which suggests an increase in FAK activity (Chapter 6). The enriched ECM proteins in the CAF CM, identified in the basal state secretome analysis (Chapter 4), may serve to upregulate FGFR signalling because FAK facilitates FGFR downstream signalling (264, 265), leading to the vulnerability to erdafitinib treatment. However, the FAK inhibitor defactinib was assessed in our drug screen and it was not defined as a hit in H1792 (Chapter 5). Further investigation by inhibiting or silencing FAK prior to erdafitinib treatment would be required to reveal whether CAF secreted proteins sensitise H1792 to erdafitinib via FAK.

Phosphoproteomics by mass spectrometry revealed that the CAF CM mediated 6MP resistance in H1792 correlates with increased signalling activity of components that form part of the JAK/STAT, MEK/ERK and AKT signalling pathways. Interestingly, drug screen analysis (Chapter 5) highlighted CAF CM mediated sensitivity hits for H1792 that target those signalling pathways, including JAK inhibitor ruxolitinib, ERK inhibitor SCH772984 and PI3K inhibitor alpelsib and pictilisib. Further validation of these hits could present a potential therapeutic combination strategy to overcome 6MP resistance.

With CAF CM mediated methotrexate resistance in H1792, drug transporter ABCG2 was found to increase with CAF CM after methotrexate treatment in

the mass spectrometry analysis but this was not validated using ABCG2 inhibitors. Phosphoproteomics by mass spectrometry also highlighted increased STAT3 phosphorylation (S727) and expression of STAT3 target genes, such as CDCA5, as a potential driver of methotrexate resistance with CAF CM. Therefore, upregulation of STAT3 signalling may be a common resistance mechanism for methotrexate and 6MP by CAF CM and as far as we know, there has been no reported association with STAT3 signalling in influencing the response to these two chemotherapeutic agents.

Given the potential upregulation of FAK signalling at the basal state level and sensitivity to other pathway inhibitors, such as JAK, AKT and ERK, lung CAF CM may potentially upregulate certain pathways involving cell proliferation and survival in H1792 compared to cancer CM at the basal state level. Therefore, the lung CAF CM may prime H1792 for adaptation to certain chemotherapeutic drugs that affect downstream processes, such as DNA replication, but simultaneously makes H1792 vulnerable to specific targeted therapies that inhibit upstream signalling modulators.

7.1 Future work

Mass spectrometry analysis of the basal state proteome and secretome highlighted the CAF features in comparison to the *KRAS* mutant-cancer cells where the potential function of CAF secreted proteins in signalling and drug response were characterised by incubating the *KRAS* mutant-cancer cells with CAF CM. Future work will build on these results to cross-validate the observations and deepen our understanding on CAF biology.

Firstly, both the basal state proteome and secretome analysis (Chapter 4 and 5) revealed that the CAF cell line models in this project have an enrichment of

ECM proteins and ECM modulating factors, which corresponds to its myofibroblastic phenotype. In addition to the contractility assay in demonstrating its functional CAF biology described in Chapter 4, gelatin zymography could be used to confirm the presence of active secreted MMPs in the CM whereas fluorescent probes could monitor ECM turnover.

Also from our basal state proteome analysis (Chapter 3), 921 proteins were identified to be CAF-enriched and HSPB5/6 and PTGS1 were our top CAF-enriched proteins not known to be associated with CAFs, which were confirmed to be CAF-enriched using immunoblotting. Orthogonal methods that are more high-throughput, such as reverse phase protein arrays, would validate the other 918 CAF-enriched proteins identified, which could highlight other potential novel stromal markers.

Furthermore, the 200 CAF-enriched secreted proteins from the basal state secretome analysis (Chapter 4) requires validation using techniques, such as enzyme-linked immunosorbent assays (ELISAs). Deeper analysis of the basal state CAF secretome in comparison to the *KRAS* mutant-cancer cell secretome would also involve investigating the mode of protein secretion through specific inhibitors, including brefeldin A for classical secretion and GW4869 for exosome secretion. Alternatively, proteins encapsulated by microvesicles could be characterised by ultracentrifugation of the CM samples to isolate the microvesicles.

Currently, the basal state (phospho)proteome analysis of the *KRAS* mutant-cancer cells with CAF CM compared to cancer CM has been undertaken after a single timepoint of 96 hours (Chapter 4). A better understanding on the

signalling dynamics would be derived from multiple timepoints, especially those representing early (phospho)proteome changes. Investigating the cell cycle status of cancer cells after exposure to CAF CM by flow cytometry would also contextualise the signalling changes. This is especially the case with H1792 where the upregulation of CDK activity with CAF CM was predicted from enrichment analysis of the basal state phosphoproteome analysis (Chapter 4, section 4.3.9).

CAF CM mediated methotrexate and 6MP resistance highlighted by the drug screen (Chapter 5) was associated with phosphophoproteome changes, such as the upregulation of STAT3 signalling (Chapter 6). Based on the phosphoproteome analysis, the role of STAT3 signalling could be probed for using genetic manipulation or inhibitors. Alternatively, CRISPR or RNA interference screens on receptors could systematically determine the fundamental receptors for CAF-driven signalling and drug response, which may correspond to any cognate ligands that are CAF-enriched identified from the basal state secretome analysis (Chapter 4). These future validation experiments on the mechanism of CAF CM mediated methotrexate and 6MP resistance could reveal potential combination therapies that can be exploited.

A deeper investigation of the cross-talk between CAFs and *KRAS* mutant-cancer cells in the context of drug response would also require the use of co-culture systems to recapitulate the reciprocal interactions and cell-cell contacts. Although these interactions were lacking with the CM approach in this project, the use of CM allowed the simple characterisation of the CAF secreted proteins and its unidirectional influence on signalling and drug response in the *KRAS* mutant-cancer cells as a starting point in this discovery

research. A more complex drug screen analysis using co-culture models could incorporate the use of high-content imaging to assess various markers simultaneously in both cell types, including those that represent proliferation (e.g Ki-67) and apoptosis (e.g cleaved PARP). Also, cancer organoids could be used in co-culture models instead of established cancer cell lines to study the interactions and drug response in a 3D context but the phenotype of the CAFs, including the secretome, should be defined because CAFs grown with organoids in Matrigel are known to promote the inflammatory subtype (121).

7.2 Final conclusions

The interplay between CAFs and *KRAS* mutant-cancer cells is critical in our understanding of mutated KRAS-driven signalling networks and drug resistance. This project used CM as the basis for data-driven discovery research where the use of mass spectrometry and a wide drug screen panel guided our analysis and hypothesis on the effect of CAF secreted proteins on signalling and drug response (Figure 7.1). Future work into the dynamics of the (phospho)proteome and metabolomics would build upon my project and provide further insights into CAF-*KRAS* mutant-cancer interactions.

From my project, it was found that the role of CAFs may be more complex beyond *KRAS* mutational status due to the varied changes in CAF mediated (phospho)proteome and drug response. Nevertheless, the data had led to the characterisation of the global impact of erdafitinib, 6MP and methotrexate in *KRAS* mutant-lung cancer H1792 cells incubated in CAF or cancer CM, where potential mechanisms of action were highlighted and could be explored as future work to determine whether it could be exploited for cancer therapeutic strategies.

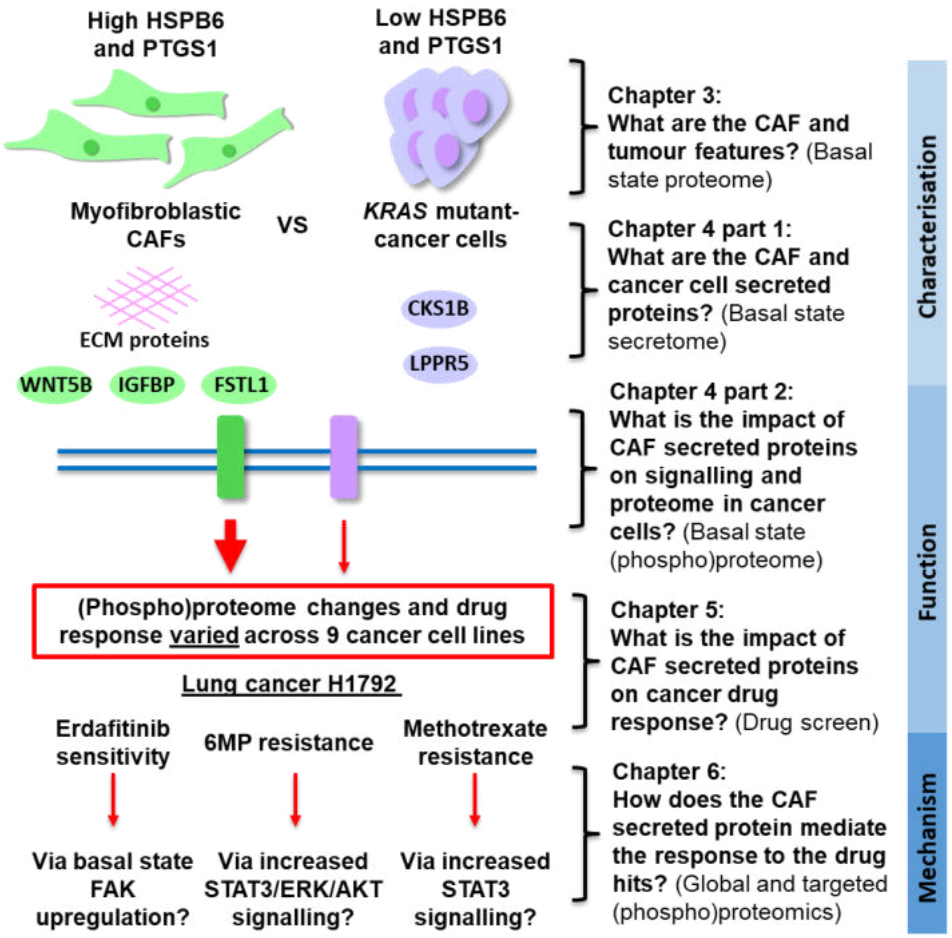


Figure 7.1 Thesis summary To investigate how secreted proteins from cancer-associated fibroblasts (CAFs) affect *KRAS* mutant-cancer cells through influencing drug response and signalling, the project was split into different aims and are detailed as individual chapters as demonstrated by this schematic. From the basal state proteome analysis (chapter 3), our CAF cell line models were characterised to have myofibroblastic features and potential CAF markers were identified: heat shock protein β6 (HSPB6/HSP20) and cyclooxygenase 1 (PTGS1/COX1). The basal state secretome (chapter 4) also highlighted the distinct features between the two cell types where the majority of the differentially expressed secreted proteins were CAF-enriched. CAF-enriched secreted proteins include extracellular matrix (ECM) proteins, wnt family member 5B (WNT5B), insulin group factor binding proteins (IGFBP) and follistatin like 1 (FSTL1) whereas cancer-enriched proteins include cyclin-dependent kinases regulatory subunit 1 (CKS1B) and lipid phosphatase phosphatase related protein type 5 (LPPR5). The effect of the CAF secreted proteins on the (phospho)proteome and drug response differed across all the 9 cancer cell lines in our basal state (phospho)proteome analysis (chapter 4) and drug screen analysis (chapter 5). Nonetheless, CAF CM mediated fibroblast growth factor receptor (FGFR) inhibitor erdafitinib sensitivity and resistance to 6-mercaptopurine (6MP) and methotrexate were consistently observed in lung cancer H1792 and (phospho)proteome analysis revealed potential mechanisms of action. An antibody-bead based assay (Luminex) was used for targeted (phospho)proteome analysis and it revealed that CAF CM mediated erdafitinib sensitivity may be via increased focal adhesion kinase (FAK) activity in upregulating FGFR signalling at the basal state level. Mass spectrometry was used for global (phospho)proteome analysis where CAF CM mediated 6MP resistance may be driven by increased signalling of signal transducer and activator of transcription 3 (STAT3), extracellular regulated kinase (ERK) and AKT whilst CAF CM mediated methotrexate resistance may be promoted by STAT3 signalling.

Chapter 8 References

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Appendix

Appendix table 1- CAF enriched proteins from basal state proteome

Accession	Gene	Log_2(CAF/ Cancer)	$-log_{10}$(p value)	H747	LIM2099	SW620	Colorectal CAF	H1792	H2030	H23	Lung CAF	CAPAN1	DANG	MIAPACA2	PSC
P34741	SDC2	6.53	4.68	-4.87	-2.72	-2.94	5.69	-1.03	-0.90	-0.75	3.48	-1.37	-1.66	-2.91	4.05
ENST00000359671_NCI-H23_Mis:G1188V	FN1	6.32	3.52	-5.63	0.96	-1.17	2.65	-2.01	-3.27	-3.14	3.04	-3.44	-3.38	-2.48	5.42
O14558	HSPB6	6.27	6.36	-0.92	-1.60	-2.24	4.22	0.54	-1.72	-2.36	4.93	-1.96	-1.91	-1.92	4.96
P24310	COX7A1	6.04	4.03	-2.44	NA	NA	3.47	-1.59	-2.34	-1.40	6.12	-1.96	-2.35	NA	2.49
Q01995	TAGLN	6.03	8.17	-2.06	-0.10	-1.60	4.28	-1.70	-1.65	-1.61	4.49	-1.79	-1.57	-1.49	4.80
P51911	CNN1	6.02	7.58	-1.99	-1.10	-1.60	4.98	-1.66	-1.61	-1.00	3.22	-1.25	-1.63	-1.72	5.35
P08123	COL1A2	5.99	8.60	-1.71	-1.60	-1.80	4.57	-1.84	-1.49	-1.50	4.71	-1.64	-1.67	-0.22	4.20
P20908	COL5A1	5.95	6.84	-2.01	-1.69	-2.21	4.68	-0.07	-1.12	-1.82	3.48	-1.70	-1.43	-1.33	5.23
P12110	COL6A2	5.80	4.78	-1.89	1.80	-2.11	4.35	-1.98	-2.28	-1.63	4.54	-1.72	-2.05	-1.20	4.16
Q96EG3	ZNF837	5.80	2.54	-5.13	-0.33	-4.91	4.52	-0.76	0.45	2.07	3.60	-1.91	-2.79	0.28	4.92
Q8N130	SLC34A3	5.71	6.06	-1.76	-2.81	-2.13	4.56	0.00	-1.54	-0.87	3.39	-1.54	-1.33	-0.88	4.90
P02461	COL3A1	5.69	10.01	-1.63	-1.85	-1.65	4.55	-1.49	-1.34	-1.33	3.72	-1.26	-1.26	-1.02	4.54
P09619	PDGFRB	5.62	9.04	-1.47	-1.62	-1.63	4.32	-1.18	-1.07	-0.68	4.65	-1.71	-1.55	-1.73	3.68
P02452	COL1A1	5.62	5.67	-1.95	0.80	-2.10	4.33	-0.39	-1.81	-1.80	4.40	-1.78	-1.89	-1.72	3.91
Q13449	LSAMP	5.53	2.16	NA	-3.80	NA	2.95	NA	-1.01	-1.21	4.42	-1.36	NA	NA	NA
P46439	GSTM5	5.50	2.52	-2.05	-5.28	-2.71	5.36	-1.96	-1.78	0.41	3.51	-1.86	-2.24	3.09	2.86
P12111	COL6A3	5.49	5.58	-1.98	1.09	-1.98	4.17	-1.80	-1.41	-1.62	4.50	-1.52	-1.78	-1.35	3.68
P62736	ACTA2	5.47	6.60	-1.35	-2.23	-2.16	5.16	-1.11	-0.85	-0.91	2.91	-1.11	-1.35	-1.25	4.25
P02751	FN1	5.44	4.69	-2.99	0.29	-1.26	3.03	-1.13	-1.35	-2.24	3.19	-1.17	-0.96	-1.67	5.93

Q16270	IGFBP7	5.42	3.98	-0.10	-0.72	-3.35	4.63	0.84	-1.66	-1.65	2.58	-2.31	-0.64	-2.61	4.99
P24593	IGFBP5	5.32	4.89	-0.92	-1.54	-1.18	5.38	-1.64	-1.85	-0.78	5.01	-1.12	-1.02	-1.92	1.58
Q5SRE7	PHYHD1	5.31	5.00	-1.81	-2.23	-2.30	4.90	-1.08	-1.53	-0.29	4.99	-1.23	-0.63	-0.84	2.04
P50479	PDLIM4	5.30	2.55	-3.08	-2.76	0.36	4.17	3.32	-2.86	-1.98	3.75	-2.47	-3.12	0.65	4.02
Q9BQ51	PDCD1LG2	5.27	3.45	0.79	0.21	-3.41	2.87	-0.49	-2.06	-3.70	3.34	-3.03	-1.86	-2.97	4.09
Q96D15	RCN3	5.17	6.10	-1.34	-2.27	-1.02	3.98	0.51	-1.89	-1.84	4.02	-1.21	-1.56	-1.01	3.62
P09486	SPARC	5.09	5.42	-1.99	-1.76	-1.91	3.52	-0.44	-0.66	-1.62	3.49	-1.82	0.59	-1.84	4.44
P02511	CRYAB	5.06	4.11	1.33	-0.37	-1.67	4.54	-1.92	-1.84	-1.11	4.47	-2.01	-2.03	-2.22	2.21
P29536	LMOD1	5.06	7.68	-1.25	-1.41	-1.89	4.69	-1.41	-0.93	-0.90	3.36	-1.30	-1.57	-1.53	3.05
Q14315	FLNC	5.03	3.24	-2.32	1.28	-2.52	3.79	1.82	-2.10	-2.23	4.45	-2.20	-0.85	-2.19	3.07
P23219	PTGS1	4.98	7.33	-1.43	-1.32	-1.71	3.11	-1.29	-1.42	-1.30	4.52	-0.10	-1.28	-1.35	3.57
Q07954	LRP1	4.97	5.36	-2.10	0.51	-1.93	3.86	-1.91	-0.44	-0.48	3.89	-1.08	-2.02	-1.74	3.44
P35555	FBN1	4.95	4.27	-2.12	-1.29	-2.31	3.58	1.72	-2.26	-1.11	3.26	-1.59	-1.30	-1.21	4.21
Q9Y646	CPQ	4.92	5.31	-1.62	0.67	-1.47	4.10	-2.04	-0.54	-1.23	3.93	-2.01	-0.99	-2.02	2.97
P04216	THY1	4.90	6.03	-0.76	-0.66	-2.16	4.99	-1.47	-1.43	-1.20	3.31	-0.56	-1.24	-1.55	2.73
Q99715	COL12A1	4.86	4.36	-2.24	0.70	-2.10	4.79	0.15	-1.28	-0.95	3.44	-1.04	-2.20	-1.96	2.70
Q8IYM9	TRIM22	4.85	2.54	0.65	3.55	-1.54	4.33	-1.98	-2.16	-2.52	3.61	-2.46	-2.02	-2.54	2.93
Q4V9L6	TMEM119	4.81	3.74	-1.07	-1.57	-1.39	5.34	-1.51	-1.37	-1.04	5.04	-0.88	-0.74	-1.28	0.45
P02462	COL4A1	4.80	5.51	-0.56	-0.91	-1.98	3.10	-1.44	-1.33	-0.54	2.54	-1.85	-1.88	-0.78	5.01
Q05682	CALD1	4.79	4.80	-2.85	-1.83	-0.52	4.17	-0.31	-0.45	-0.19	2.78	-2.40	-1.37	-0.85	3.82
Q14699	RFTN1	4.79	4.35	-1.83	-1.72	-2.18	4.38	1.15	0.12	-1.13	2.93	-1.71	-2.04	-1.44	3.46
Q12884	FAP	4.78	6.47	-1.43	-1.68	-1.22	2.22	-1.17	-0.97	-0.77	3.91	-1.16	-1.41	-0.93	4.62

P43235	CTSK	4.77	4.74	-1.27	-2.00	-1.52	4.06	-2.00	-1.78	-1.42	4.56	-1.57	-1.68	-1.47	0.80
Q12841	FSTL1	4.76	7.90	-1.61	-1.60	-1.70	3.88	-0.35	-1.09	-1.08	3.03	-1.00	-1.06	-1.21	3.80
P12109	COL6A1	4.75	4.06	-1.57	2.11	-1.56	3.65	-1.91	-1.85	-1.74	3.68	-1.24	-1.71	-1.20	3.36
Q8WX93	PALLD	4.74	4.46	-1.35	0.62	-2.32	4.08	0.37	-1.23	-2.01	3.34	-0.61	-1.80	-2.35	3.25
Q15113	PCOLCE	4.74	8.35	-1.34	-1.61	-1.14	3.75	-0.78	-0.78	-1.10	3.80	-1.65	-1.65	-1.30	2.88
Q0ZGT2	NEXN	4.73	4.95	-1.96	-0.48	-1.94	4.11	0.78	-1.59	-0.40	3.32	-1.85	-1.93	-1.29	3.23
Q3SY69	ALDH1L2	4.72	3.55	-1.22	-2.05	-2.17	3.42	1.68	-1.73	-2.23	3.86	0.90	-1.92	-1.86	3.34
Q9UHI8	ADAMTS 1	4.70	3.02	-3.27	-1.39	-1.55	5.35	0.77	-1.05	-2.11	3.20	-1.40	1.57	-2.12	2.03
Q9HBL0	TNS1	4.69	8.14	-1.50	-1.36	-1.57	3.75	-1.13	-1.13	-1.31	3.09	-0.19	-1.08	-1.30	3.71
Q9BRK3	MXRA8	4.67	3.21	-2.08	2.45	-1.86	3.97	-1.73	-1.80	0.43	3.74	-1.91	-1.93	-2.07	2.80
Q15746	MYLK	4.64	3.79	-1.19	1.79	-1.69	4.06	-2.09	-1.17	-1.34	4.33	-1.63	-0.95	-2.17	2.06
Q53QV2	LBH	4.60	1.78	-1.15	-2.15	-3.08	3.48	2.03	-2.93	-6.89	2.98	0.81	-1.77	-3.85	1.03
O95450	ADAMTS 2	4.60	7.64	-2.08	-1.11	-1.11	4.11	-0.92	-0.94	-0.79	2.92	-1.37	-0.89	-1.14	3.32
O95528	SLC2A10	4.58	2.04	0.77	0.91	-3.99	3.88	-3.73	-3.80	-2.36	3.22	2.26	0.30	-0.67	3.20
Q14766	LTBP1	4.54	3.54	-3.05	-1.29	-2.77	2.11	1.38	-0.73	-1.53	3.27	-1.93	-0.73	-1.44	4.21
O60565	GREM1	4.54	1.34	NA	-3.71	-2.57	-0.62	NA	NA	NA	2.59	NA	NA	NA	2.22
Q96CG8	CTHRC1	4.52	3.11	-2.25	2.44	-2.17	2.93	0.48	-1.51	-1.62	3.78	-1.60	-1.65	-2.28	3.45
P09038	FGF2	4.47	2.69	-3.08	-2.62	-2.46	2.83	1.05	-0.17	-0.68	2.87	-3.57	-2.38	1.23	3.47
P78559	MAP1A	4.42	3.89	-1.97	-1.34	-1.45	3.69	1.88	-0.48	-1.56	3.60	-1.48	-1.71	-1.83	2.65
Q6EMK4	VASN	4.42	9.07	-1.26	-1.18	-1.12	3.62	-1.04	-1.18	-0.98	3.48	-0.50	-1.25	-1.44	2.84
Q9NVE4	CCDC87	4.33	2.54	-1.54	-2.05	-0.71	2.75	NA	NA	NA	1.27	NA	NA	-3.13	3.40
P05997	COL5A2	4.27	3.35	-2.20	-0.95	-2.12	3.47	-1.64	-2.01	-0.14	2.60	-1.33	-1.37	2.16	3.54

Q7Z7L8	C11orf96	4.26	5.00	-1.76	-0.73	-0.58	4.11	0.50	-1.85	-1.01	2.38	-0.87	-1.77	-1.53	3.10
P80723	BASP1	4.20	1.35	-3.25	-3.91	-3.82	3.58	1.43	3.86	2.78	3.13	-3.31	-0.28	-2.96	2.75
P28161	GSTM2	4.20	3.03	-2.09	-2.19	-2.10	3.62	2.40	-1.52	-1.21	3.30	-1.66	-1.91	-0.23	2.16
Q96F85	CNRIP1	4.20	4.09	-2.19	-1.44	-1.80	3.45	0.78	0.40	-1.56	2.95	-1.65	-0.13	-1.85	3.04
P07996	THBS1	4.14	4.35	-1.44	0.18	-1.71	3.13	0.35	0.02	-1.28	2.56	-1.18	-2.02	-2.26	3.63
Q92629	SGCD	4.14	6.25	-1.26	-2.05	-1.14	3.55	-0.97	-0.78	-0.40	3.47	-0.98	-1.36	-1.18	2.03
Q9UP38	FZD1	4.13	3.26	-0.38	0.91	-3.07	3.95	-2.08	-1.02	-2.65	3.20	-1.03	0.07	-0.58	1.97
Q4L180	FILIP1L	4.13	3.60	1.78	-2.13	-0.35	4.01	-1.33	-1.75	-1.64	2.95	-1.03	-1.03	-1.81	2.33
P49746	THBS3	4.11	3.37	-1.47	0.20	-2.53	3.24	0.65	0.76	-0.95	2.43	-1.40	-1.78	-2.73	3.58
P07585	DCN	4.11	3.68	-0.72	-0.99	-1.06	4.91	-0.98	-0.79	-1.09	3.95	-1.40	-0.96	-1.25	0.37
Q16363	LAMA4	4.10	3.93	-0.87	-1.78	-2.06	3.42	1.17	-1.59	-1.44	3.09	-1.10	0.42	-1.98	2.72
P32455	GBP1	4.08	2.17	-0.20	1.64	-2.79	3.79	1.75	0.51	-3.51	2.48	-1.92	-2.57	-2.08	2.92
Q9H6B4	CLMP	4.08	2.10	-2.42	0.68	-3.91	3.77	2.33	-0.86	-1.61	3.33	0.67	-1.84	-3.02	1.80
Q9Y6C2	EMILIN1	4.08	7.66	-1.33	-1.25	-1.20	2.92	-1.12	-0.80	-0.60	2.52	-1.10	-0.51	-1.27	3.73
Q68CL5	TPGS2	4.07	3.53	-1.76	-1.19	-1.53	1.51	NA	-1.67	NA	2.19	NA	NA	-1.48	3.94
Q9NR99	MXRA5	4.07	2.93	-0.33	-1.85	-1.33	5.70	-0.71	-1.14	-0.14	3.25	-0.52	-1.14	-1.99	0.20
Q02539	HIST1H1A	4.06	1.98	-2.09	3.78	-1.76	1.97	-0.24	-1.50	-0.97	3.12	-2.80	-1.81	-3.77	3.38
Q587J7	TDRD12	4.06	1.37	-2.31	NA	-4.87	3.39	-4.86	NA	1.61	2.76	0.63	1.35	-0.09	2.37
Q9UJY1	HSPB8	4.03	2.09	-1.39	1.39	-3.56	2.88	1.55	-1.68	-1.98	2.72	1.83	-2.43	-2.79	3.47
P24821	TNC	4.01	4.37	-1.71	-1.21	0.30	2.55	-0.11	-1.42	0.05	2.32	-1.46	-1.91	-1.55	4.16
Q15063	POSTN	4.01	2.85	-1.74	-1.12	-1.75	0.80	1.42	-0.99	-0.85	2.64	-1.30	-1.45	-1.25	5.58
Q9NZN4	EHD2	4.00	2.96	-2.61	0.41	-3.49	3.71	-0.39	0.89	-1.66	3.34	-1.06	-0.15	-0.94	1.95

P29279	CTGF	3.97	3.03	-2.00	-1.17	-3.16	2.15	-0.41	1.28	0.02	2.18	-0.96	-1.71	-1.09	4.50
O00469	PLOD2	3.97	2.82	-1.11	0.01	-2.19	2.22	-0.92	2.24	-1.42	2.41	-1.31	-1.53	-2.69	4.29
Q92626	PXDN	3.95	3.86	-1.89	-1.96	-1.26	2.95	0.33	1.08	-0.34	2.53	-1.82	-1.52	-1.51	3.40
Q9UBG0	MRC2	3.94	2.73	-2.40	1.90	-2.88	3.03	0.17	-0.49	0.16	2.96	-1.61	-2.63	-1.08	2.89
P20337	RAB3B	3.94	2.79	-0.04	1.23	-2.61	2.60	-2.14	0.03	-1.53	3.87	-2.41	0.81	-2.22	2.40
Q9Y6K8	AK5	3.94	2.92	-1.66	0.94	-2.18	3.25	1.38	-1.18	-1.60	4.19	-1.70	-2.12	-0.75	1.42
P09493	TPM1	3.92	2.93	-2.67	-0.30	-2.02	3.25	0.55	1.20	-0.13	1.97	-0.85	-2.13	-2.48	3.61
P28300	LOX	3.92	3.60	-0.71	-1.10	-3.56	2.49	0.80	-0.95	-0.94	2.52	-1.29	-0.88	-0.46	3.72
Q9Y5S1	TRPV2	3.92	2.22	-2.28	3.15	0.59	3.01	-2.13	-1.96	-2.12	3.56	-1.92	-0.05	-2.09	2.25
ENST00000379086_NCI-H23_Mis:R399H	P4HA2	3.91	3.67	-0.45	1.52	-1.69	2.47	-0.75	-0.62	-1.83	2.96	-2.05	-2.11	-0.80	3.36
P08648	ITGA5	3.89	3.79	-2.19	-0.29	-1.99	2.72	-0.89	-0.03	1.14	2.63	-1.75	-1.78	-0.97	3.39
ENST00000397763_CAPAN-1_Mis:L693F	COL6A2	3.88	2.41	-2.16	0.22	-4.49	3.08	NA	-0.88	-1.39	2.88	NA	-0.58	-0.97	1.30
P98082	DAB2	3.84	3.47	-2.65	-0.78	-1.36	3.35	0.79	-0.10	-0.32	3.14	-1.89	0.00	-2.34	2.16
P51884	LUM	3.84	4.58	-1.43	-0.96	0.20	4.00	0.09	-1.81	-1.65	2.78	-0.86	-1.18	-1.03	1.85
P09936	UCHL1	3.82	1.63	-2.66	-2.59	-2.66	2.47	3.40	1.57	1.46	2.99	-2.66	-2.09	-2.36	3.14
Q9UMS6	SYNPO2	3.81	3.31	-1.25	-2.43	-2.32	3.94	-0.67	1.29	-0.37	3.13	-0.77	-1.04	-1.02	1.50
P35556	FBN2	3.80	4.07	-1.56	-1.46	-1.13	4.13	-1.09	-1.48	-1.52	2.46	-1.16	0.78	-1.51	1.42
O43854	EDIL3	3.79	1.60	-3.25	-1.67	-1.97	1.50	2.83	2.46	-0.33	1.99	-3.11	-2.12	-2.14	4.77
P27487	DPP4	3.76	2.84	0.19	-1.08	-2.45	4.01	1.94	-1.69	-1.41	2.20	-1.14	-1.89	-1.80	1.95
P46821	MAP1B	3.74	1.99	0.10	-2.86	-1.23	2.36	2.75	1.23	-1.23	2.50	-2.89	-1.52	-2.76	3.57
Q9UBP4	DKK3	3.74	4.16	-1.04	-1.32	-3.66	2.19	-0.65	-1.31	-0.30	2.56	-1.16	-0.80	-1.57	2.54
Q13976	PRKG1	3.74	5.87	-1.04	-1.22	-2.14	2.52	-0.86	-1.03	-0.53	2.93	0.08	-1.26	-0.64	2.90

Q8WUJ3	CEMIP	3.73	3.48	-1.52	-1.37	1.38	4.30	-1.29	-1.27	-1.19	2.85	-1.15	-0.73	-1.25	1.25
Q9P121	NTM	3.72	3.32	-1.21	-1.95	-2.22	1.51	-0.92	1.64	-0.98	2.96	-1.23	-1.63	-0.93	3.55
Q08431	MFGE8	3.72	3.58	-0.60	1.72	-1.27	3.31	-1.22	-1.60	-1.12	3.10	-0.76	-1.86	-1.67	1.96
Q9HCL0	PCDH18	3.70	3.23	-0.15	-2.36	-1.99	3.67	-1.42	-0.24	-0.10	4.01	-1.19	-0.46	-0.40	0.64
P17661	DES	3.69	1.96	-2.54	-3.68	-1.91	2.71	0.71	0.44	0.98	3.20	-2.54	-1.74	1.99	2.38
O94808	GFPT2	3.68	1.85	-2.12	-1.44	-1.91	1.66	3.88	-1.32	-1.86	1.79	-1.52	-1.71	-0.29	4.83
Q8N0X7	SPG20	3.67	1.83	-2.82	-2.13	-3.05	2.77	2.03	2.44	-0.40	2.75	0.28	-2.39	-2.22	2.73
P32418	SLC8A1	3.66	1.69	NA	NA	NA	2.63	-1.34	-2.21	0.40	2.16	0.48	-4.20	NA	2.07
P00325	ADH1B	3.65	2.41	-1.38	-0.25	-1.12	5.83	-1.21	-1.57	-1.31	2.51	0.05	-1.25	-0.81	-0.34
Q9H7C4	SYNC	3.64	4.96	-1.33	0.86	-1.64	3.22	-1.36	-1.06	-0.80	2.46	-1.19	-1.09	-0.78	2.45
Q9UBY9	HSPB7	3.62	5.07	-0.89	-1.28	-1.44	2.74	-1.15	-0.84	-0.56	4.00	-0.64	-0.66	-0.94	1.34
O95477	ABCA1	3.61	2.83	-2.22	1.49	-2.12	1.96	0.54	-0.62	-0.38	2.33	-1.57	-2.26	-1.15	3.79
Q96SL4	GPX7	3.61	2.83	-1.26	-1.16	0.65	2.21	2.04	-1.47	-2.30	3.09	-1.30	-1.24	-2.08	2.82
Q15139	PRKD1	3.61	2.34	-1.98	-2.55	-3.00	3.42	0.65	2.11	-1.10	2.39	-0.78	-0.81	-2.03	1.84
P24844	MYL9	3.60	5.71	-1.05	0.17	-1.46	3.13	-0.43	-0.65	-0.79	2.02	-1.31	-1.06	-1.52	2.95
P0DUD3		3.60	4.32	NA	-0.82	0.17	2.56	-1.18	-1.20	NA	2.42	-2.28	-0.70	-1.55	2.58
P22090	RPS4Y1	3.58	1.48	-0.41	1.70	-1.77	2.02	-2.13	4.27	-1.82	2.66	-3.14	-2.45	-2.31	3.38
Q9Y6F6	MRVI1	3.57	3.57	-0.31	-0.74	-1.38	4.08	-0.74	-0.33	-1.28	2.46	-2.93	-0.87	-0.63	1.11
P17813	ENG	3.57	2.22	-1.76	0.66	-2.36	2.85	1.07	-2.92	-2.18	2.55	-2.29	1.42	0.33	2.64
Q8WWX9	SELM	3.56	2.46	-1.93	1.35	-2.92	3.46	-0.57	1.05	0.22	2.51	-1.59	-2.59	-1.04	2.04
O15523	DDX3Y	3.55	2.50	0.59	2.68	-1.37	2.55	-1.58	-1.72	-1.61	2.25	-1.51	-1.83	-1.64	3.20
Q96NH3	TBC1D32	3.54	4.55	-1.42	-0.65	0.10	2.58	-0.04	-1.44	-0.46	1.67	-1.27	-1.13	-1.64	3.72
Q4LDE5	SVEP1	3.53	3.60	0.23	-1.83	-1.50	3.87	NA	-0.96	-0.32	2.23	-1.46	-1.16	-1.71	1.21

O43294	TGFB1I1	3.50	4.97	-0.87	-0.07	-1.81	2.86	-1.20	-1.55	-1.43	2.34	-0.23	0.25	-0.97	2.69
P08670	VIM	3.49	1.56	-2.99	-3.71	-1.12	2.73	1.31	1.08	0.90	3.09	-3.16	-2.31	2.14	2.03
P17302	GJA1	3.49	2.89	-2.39	-0.58	-2.28	2.15	0.36	0.18	-0.63	2.26	-1.94	1.14	-1.72	3.45
P29466	CASP1	3.46	4.51	-0.10	-0.71	-1.61	3.62	-0.20	-1.52	-1.14	2.96	-0.69	-0.83	-1.00	1.21
O95980	RECK	3.46	3.90	-1.03	-0.87	-2.01	3.17	-1.69	0.61	-0.30	2.89	-1.34	-1.62	-1.15	1.20
P35754	GLRX	3.43	1.63	0.02	2.84	-1.16	3.33	0.09	0.30	-2.58	3.11	-2.60	-0.35	-4.28	1.29
O76074	PDE5A	3.43	2.90	-0.14	-1.93	-1.13	3.44	-0.88	-0.34	-1.28	3.89	0.87	-1.05	-1.84	0.38
Q07065	CKAP4	3.42	3.50	-0.16	-0.35	-3.07	2.33	0.64	-0.05	-0.84	2.60	-1.36	-1.29	-1.22	2.77
P23141	CES1	3.41	2.71	-1.11	-1.31	0.18	3.86	0.02	-1.02	-0.99	4.04	-1.27	-0.87	-1.57	-0.33
Q9Y625	GPC6	3.40	2.43	-2.27	-2.03	-2.39	3.45	1.48	1.00	-0.07	2.15	-1.17	-1.24	-2.05	1.68
Q86Y22	COL23A1	3.40	3.06	-0.70	0.69	NA	1.81	-1.70	-1.77	-3.22	2.32	-0.73	-0.49	-1.35	2.61
Q9P299	COPZ2	3.40	3.08	-0.21	1.31	-1.17	2.78	-0.26	-2.69	-1.46	2.92	-0.42	-2.14	-0.62	1.94
O75508	CLDN11	3.40	1.59	-1.64	-1.24	1.25	2.08	1.94	-3.29	-1.91	2.08	-2.46	-3.22	2.14	3.22
P0CW20	LIMS3L	3.39	3.76	-2.79	-0.92	-1.72	0.74	-1.89	NA	NA	2.17	-1.51	-0.70	-1.84	2.39
P05121	SERPINE 1	3.39	2.98	-1.30	0.03	-1.83	0.72	0.04	-1.56	-0.99	2.10	-1.17	-0.51	-0.34	4.82
Q10588	BST1	3.39	2.23	1.21	1.35	-2.18	2.84	0.24	-1.47	-1.75	2.32	-0.41	-3.36	-2.04	2.21
P56199	ITGA1	3.39	2.38	-2.03	1.98	-0.98	4.41	-1.17	0.51	-1.36	1.65	-1.20	-1.11	-2.26	1.56
Q9H4G4	GLIPR2	3.38	2.70	-2.61	-1.17	-2.21	2.93	-0.57	1.49	0.17	2.27	-1.34	0.50	-1.88	2.41
P16234	PDGFRA	3.37	4.66	-1.16	-1.25	-1.96	3.32	-0.72	-1.12	-0.68	2.78	-0.90	-0.72	-0.96	0.87
Q5EG05	CARD16	3.36	3.25	-0.40	-1.09	-1.52	4.30	-0.39	-0.43	-1.08	2.78	-0.29	-1.94	-0.42	0.48
Q9Y680	FKBP7	3.36	3.82	-2.02	-0.16	-0.77	2.55	0.00	0.64	-1.54	2.61	-1.71	-0.22	-1.78	2.38
P05106	ITGB3	3.35	2.50	-1.63	1.11	-1.94	3.31	0.56	1.14	-2.02	1.45	-1.25	-1.89	-1.82	2.71

Q6ZMV7	LEKR1	3.34	3.94	-1.53	-0.46	NA	2.34	-1.46	-2.09	-0.31	2.47	-1.60	0.29	-0.12	2.47
O14782	KIF3C	3.33	3.54	-1.95	0.96	-1.37	2.59	-1.49	-1.28	0.08	2.11	-1.58	0.31	-1.18	2.78
Q8IV76	PASD1	3.32	1.61	NA	NA	-2.68	2.06	-0.77	-0.64	0.34	3.04	-3.47	-2.90	1.92	1.35
Q969G5	PRKCDBP	3.32	2.18	0.26	1.37	-1.48	2.75	0.90	-2.45	-2.49	3.03	-2.81	0.37	-1.14	1.68
Q8WWM9	CYGB	3.31	3.57	-0.11	-1.66	-1.71	4.17	-1.24	-0.90	0.36	1.37	-0.85	-0.35	-0.99	1.91
O75970	MPDZ	3.30	1.69	-1.89	-1.98	-2.60	2.30	2.34	2.18	0.80	2.55	-2.30	-2.35	-1.64	2.59
P05186	ALPL	3.29	2.95	-0.94	-0.61	-0.42	4.86	-0.83	-0.59	-0.97	0.08	-1.13	-1.10	-1.08	2.38
P55287	CDH11	3.28	4.35	-1.11	-1.69	-1.10	2.40	-0.97	-1.48	0.38	2.42	-0.85	-1.27	-2.46	1.51
Q13308	PTK7	3.26	2.31	-0.52	-3.28	1.68	2.53	-1.69	-0.43	-0.26	2.64	-2.73	0.01	-0.11	2.16
Q9Y6Q2	STON1	3.21	3.18	-0.61	-0.05	-2.08	3.86	-0.64	-1.73	0.99	1.97	-1.21	-0.98	-0.93	1.41
P05230	FGF1	3.21	1.71	NA	-0.66	-3.06	0.76	NA	NA	NA	2.01	NA	NA	-1.10	2.05
O95864	FADS2	3.21	1.75	-2.15	-1.76	-1.48	1.47	0.51	3.52	-1.84	2.31	-2.30	-1.00	-0.71	3.44
Q9Y4K0	LOXL2	3.21	2.17	-1.74	-0.55	-2.89	1.70	0.96	-0.44	0.32	2.18	-2.27	-2.04	1.43	3.34
P08253	MMP2	3.20	3.42	-1.63	-1.43	-0.68	2.09	1.74	-0.94	-1.18	2.46	-1.26	-0.95	-1.42	2.48
O00622	CYR61	3.19	2.63	-1.50	-0.64	-2.79	1.77	-0.16	1.56	0.16	1.96	-1.61	-1.49	-1.07	3.32
Q15582	TGFBI	3.17	2.49	0.26	1.32	-1.49	2.17	0.40	-0.64	-2.29	1.33	-2.11	-0.74	-1.86	3.63
Q9NQS3	PVRL3	3.17	1.51	-1.56	1.05	-5.68	1.98	-0.21	NA	-1.06	3.08	-0.78	-1.56	-0.68	0.51
P00742	F10	3.17	3.29	-0.82	NA	NA	0.95	-1.17	-0.19	-2.02	2.54	-1.08	-1.05	NA	2.85
Q7Z5H3	ARHGAP22	3.16	2.37	-2.10	0.20	-0.71	0.93	0.59	-0.19	-0.05	3.43	-1.94	-2.69	NA	2.54
P26022	PTX3	3.15	1.92	-2.01	-2.11	-2.56	1.55	0.03	-2.03	1.29	1.76	-1.81	0.92	1.19	3.77
P35625	TIMP3	3.14	5.11	-0.68	-0.56	-1.63	2.31	-1.15	-2.01	-0.47	2.05	-1.40	-0.07	-1.22	2.00
Q96G61	NUDT11	3.13	1.84	-2.75	-2.53	-2.34	2.93	-2.26	1.98	1.45	1.91	-0.34	-0.40	-0.88	1.86

O00423	EML1	3.12	2.94	-1.50	0.99	-1.90	2.79	-1.26	0.59	-0.60	2.95	-1.68	-1.67	-0.01	1.30
Q16610	ECM1	3.11	3.40	-0.52	0.66	-2.35	2.49	-1.19	-0.74	-1.30	2.79	-1.79	0.20	-0.37	1.57
Q9UN70	PCDHGC 3	3.10	2.57	-0.73	-3.10	-1.66	2.31	-0.59	-1.29	-1.00	2.77	-0.67	0.73	1.35	1.89
Q7L311	ARMCX2	3.09	2.32	-0.18	-2.00	-3.03	2.29	-1.66	-1.19	1.08	2.52	-0.58	-0.86	1.47	2.14
Q12946	FOXF1	3.06	3.50	-1.74	-0.38	-0.88	3.42	-0.96	-1.04	-0.78	2.79	-0.79	-1.18	-0.93	0.09
O14683	TP53I11	3.05	1.65	2.11	-2.27	-3.22	3.01	-1.40	-1.77	-0.40	2.36	0.27	1.87	-2.06	1.50
Q8IVL6	LEPREL2	3.05	2.83	-2.04	0.21	-1.02	1.65	0.60	-1.11	-0.35	2.47	-2.04	-1.98	0.86	2.75
P60033	CD81	3.04	2.63	-0.87	-0.64	0.75	2.70	0.02	-0.48	-0.57	2.56	-3.62	-0.12	-1.31	1.57
P21810	BGN	3.03	3.55	-0.77	-0.79	-1.84	0.68	-0.55	-0.40	-0.22	2.28	-0.90	-1.03	-0.33	3.87
P78357	CNTNAP 1	3.03	2.16	-1.90	-0.06	-3.66	1.81	0.10	1.13	0.12	2.55	-2.00	-0.75	0.20	2.46
Q76M96	CCDC80	3.02	4.21	-0.17	-1.07	-1.20	1.95	-0.84	0.83	-1.52	2.50	-1.62	-1.07	-0.99	2.07
O75762	TRPA1	2.99	2.67	-0.96	NA	NA	2.84	-0.52	-0.59	-0.79	3.48	-0.85	-1.44	-1.14	-0.03
Q6ZN30	BNC2	2.99	2.74	-1.78	-1.23	-2.35	2.36	-0.25	1.17	0.69	2.32	-1.42	-1.48	-0.08	2.05
P98160	HSPG2	2.99	4.18	0.07	-0.43	-1.03	1.77	-1.12	-1.45	-1.23	1.82	-1.18	0.53	-0.89	3.13
Q8N5C1	FAM26E	2.99	2.49	-1.46	-0.77	-1.28	2.03	-2.16	1.69	-2.26	1.32	-1.49	-1.68	0.28	2.58
Q9H492	MAP1LC 3A	2.98	2.67	-0.15	-2.61	-1.90	1.78	0.59	0.71	-0.13	2.57	-1.61	-1.96	-0.79	2.00
Q6XE24	RBMS3	2.98	1.81	-1.13	2.15	-2.35	1.54	-0.12	0.14	-1.84	1.95	-3.47	-1.64	-2.64	1.81
Q93062	RBPMS	2.96	1.92	0.11	1.31	-0.33	3.01	-0.85	0.39	-3.02	1.83	0.77	-2.54	-2.51	1.84
P08133	ANXA6	2.96	2.51	-1.15	1.27	-3.18	2.50	-0.58	0.06	-0.89	2.02	-1.92	0.06	-0.35	2.14
P08572	COL4A2	2.95	4.24	-1.24	-0.77	-0.90	1.86	-1.10	-1.11	-0.70	1.26	-0.44	-0.67	0.29	3.52
P00736	C1R	2.95	2.63	-0.82	-1.96	-0.99	3.94	0.38	-0.72	-1.61	2.03	-1.82	-0.29	-0.28	0.17

O14807	MRAS	2.94	2.19	-1.33	0.81	-3.92	2.61	-0.07	0.47	-0.10	2.29	-0.07	-1.44	-0.99	1.73
Q96QB1	DLC1	2.92	2.09	-0.21	1.54	-3.31	0.79	-0.01	-0.15	-0.44	2.46	-1.56	-1.53	-1.35	3.18
Q9H4X1	RGCC	2.92	1.64	0.17	-1.72	-0.62	2.11	-1.57	-0.73	-1.07	4.63	-2.41	2.07	-1.54	-0.44
O76061	STC2	2.92	2.90	0.31	-0.25	-0.45	2.15	-0.08	0.50	-1.98	1.49	-2.12	-0.43	-2.07	2.93
O94921	CDK14	2.91	2.14	0.82	-0.11	-1.30	0.94	1.53	-0.89	-2.30	2.73	-0.19	-1.86	-2.25	2.87
P98198	ATP8B2	2.90	1.49	-2.93	-3.11	-2.79	2.11	1.38	1.49	0.89	2.17	-0.84	-2.74	-1.19	1.14
P50281	MMP14	2.88	1.40	-2.48	2.12	-2.12	1.56	0.59	0.57	-2.57	2.10	-1.93	2.02	-2.67	2.82
Q8N682	DRAM1	2.88	2.96	-0.70	0.89	-2.72	2.10	-0.42	-0.58	-0.45	2.74	0.04	-0.74	-1.78	1.64
Q16832	DDR2	2.86	4.37	-1.10	-1.01	-0.46	1.85	-1.57	-0.64	-1.16	2.22	-0.70	-1.02	0.86	2.24
Q6UVK1	CSPG4	2.86	2.78	-1.37	-0.76	-1.59	0.85	0.16	-1.26	-1.02	2.99	1.51	-0.99	-1.11	2.60
P17405	SMPD1	2.86	2.25	-0.45	1.22	-0.62	2.79	-1.11	1.20	-1.69	2.29	-2.95	-1.09	-0.95	1.35
Q9H792	PEAK1	2.85	7.18	-0.69	-0.30	-0.85	2.16	-0.10	-1.16	-0.88	2.21	-0.57	-0.98	-0.88	2.05
ENST00000361818_NCI-H2030_Mis:L81M	MAP2K3	2.85	3.31	0.10	-1.61	0.16	2.35	-1.99	-1.94	-0.07	2.47	-0.76	0.22	-0.53	1.59
P55316	FOXG1	2.85	3.90	-0.58	0.33	-0.27	1.99	-1.01	-1.01	-1.48	1.84	-2.12	-0.22	-0.06	2.58
Q96AC1	FERMT2	2.84	2.58	-3.23	0.06	-1.14	2.25	0.06	0.87	-0.03	1.73	-1.42	-0.94	-0.63	2.41
P13726	F3	2.84	1.54	1.13	1.33	-2.53	3.82	-0.56	-1.93	-2.26	2.35	1.28	-0.57	-2.27	0.21
P50454	SERPINH1	2.83	4.43	-1.68	-0.36	-1.25	2.02	-1.59	-0.77	-0.28	1.85	-0.01	0.07	-0.51	2.50
O60831	PRAF2	2.83	2.15	-3.10	0.39	0.00	2.24	-0.10	-0.21	0.29	2.31	-0.87	-3.07	0.32	1.81
Q15035	TRAM2	2.83	3.96	-1.28	-0.57	-0.85	1.75	-0.66	-1.08	-0.70	2.21	-1.79	0.95	-0.38	2.40
Q9Y5J5	PHLDA3	2.82	2.09	0.99	1.72	-1.92	2.42	-0.77	-2.76	-0.81	2.48	-0.52	-0.44	-1.84	1.45
P13612	ITGA4	2.80	2.15	-1.03	-0.55	-1.29	1.84	2.63	-0.75	-2.56	2.08	-1.14	-0.77	-0.83	2.37
Q14195	DPYSL3	2.79	1.38	-3.02	-2.35	1.13	1.86	2.43	-0.75	-1.76	1.96	1.23	-0.16	-3.03	2.46

ENST00000277900_NCI-H2030_Mis:V591L	ADD3	2.78	1.66	-0.13	1.44	-3.89	2.04	0.85	-2.38	-1.34	1.71	-0.27	0.55	-1.71	2.31
Q9UQ03	CORO2B	2.78	2.13	-1.01	1.34	-2.35	0.92	-1.71	-1.06	-1.27	3.21	-0.66	1.40	-0.95	2.13
Q9Y6R1	SLC4A4	2.78	2.07	-1.60	1.70	-0.87	3.58	0.74	-0.10	-2.14	1.87	-1.37	-1.55	-1.07	0.81
Q8TD55	PLEKHO2	2.78	3.24	-1.32	1.07	-1.30	2.61	-0.24	-0.77	-0.76	2.81	-1.49	-0.66	-0.78	0.83
Q96PQ0	SORCS2	2.78	2.03	-1.61	-0.92	1.11	4.82	-0.32	-0.74	-0.73	0.57	-0.50	-0.78	-1.76	0.86
Q13228	SELENBP1	2.77	1.72	0.57	1.09	-1.48	3.56	-0.42	-2.24	-1.72	2.47	1.49	-2.10	-1.42	0.20
Q13488	TCIRG1	2.77	2.79	0.21	1.64	-1.06	2.11	-0.91	-2.17	-0.45	2.15	-1.36	-1.07	-1.06	1.96
Q03828	EVX2	2.76	3.73	0.04	NA	NA	2.16	-0.85	-0.59	-1.46	1.82	-1.27	0.05	-1.70	1.82
Q8TED1	GPX8	2.75	3.31	-0.93	-0.28	-2.33	1.99	0.23	0.73	-1.24	2.24	-1.21	-0.92	-0.23	1.97
Q15417	CNN3	2.75	1.65	-2.39	1.25	0.45	2.97	0.32	0.32	-1.08	1.65	0.75	-2.94	-2.87	1.56
Q8IXL7	MSRB3	2.75	2.10	-2.26	0.94	0.75	2.19	-0.09	0.02	0.48	2.06	-1.33	-2.04	-2.66	1.93
Q96JY6	PDLIM2	2.75	2.21	-1.13	0.86	-1.11	2.23	-0.59	1.06	-0.09	2.29	-1.59	-3.29	-0.29	1.66
Q8NF91	SYNE1	2.74	2.29	-1.87	1.71	-1.33	2.11	-0.34	1.11	-1.14	1.65	-1.13	-1.47	-1.72	2.42
Q9BT88	SYT11	2.74	3.19	-0.95	NA	NA	1.94	-0.73	0.32	-0.06	2.08	-1.26	-2.29	-0.78	1.74
P98155	VLDLR	2.74	2.17	-0.26	-0.29	-1.81	2.16	1.41	0.36	-2.01	1.67	0.58	-2.34	-1.79	2.33
Q9P2E9	RRBP1	2.73	4.64	-0.68	0.35	0.17	2.10	-0.83	-0.86	-1.10	1.91	-1.48	-1.23	-0.48	2.13
P13674	P4HA1	2.72	4.28	-1.78	0.04	-0.32	1.62	-0.21	-0.09	-0.81	1.83	-1.18	-1.26	-0.53	2.69
P22692	IGFBP4	2.72	1.86	-3.19	-0.50	-0.05	2.24	-0.90	1.45	-3.14	2.24	-1.43	-0.27	-0.47	0.86
Q8IWE2	FAM114A1	2.72	2.40	-0.49	0.57	-3.26	1.70	-0.38	0.42	-0.11	2.12	-0.58	-2.03	-0.26	2.30
Q9UKX5	ITGA11	2.72	2.80	-0.91	0.04	-1.71	2.08	0.80	-0.60	-1.32	0.53	-1.19	-0.48	-0.74	3.51
P61587	RND3	2.71	2.52	0.68	-0.33	-2.63	2.86	-0.07	-0.45	-0.77	2.65	-0.30	-0.37	-1.87	0.60

P39060	COL18A1	2.71	1.67	-2.98	1.62	-0.09	3.26	-0.57	-1.68	-2.17	1.19	-1.65	0.00	1.41	1.65
Q96RF0	SNX18	2.71	4.39	-0.78	-1.33	-1.40	1.95	-0.22	-0.16	-1.16	2.88	-0.05	-0.57	-0.43	1.27
P78324	SIRPA	2.71	2.32	-3.35	1.03	0.10	2.18	-0.79	-0.99	-1.47	2.00	-0.69	0.34	-0.26	1.92
O60443	DFNA5	2.71	1.42	-3.16	0.79	-1.56	1.67	0.61	-2.20	-1.19	2.04	-2.03	2.95	-0.30	2.38
P55268	LAMB2	2.70	2.57	-0.73	1.66	-1.61	2.23	-1.13	-0.23	0.06	2.12	-0.53	-1.22	-2.35	1.73
Q9Y696	CLIC4	2.68	5.98	-0.41	-0.12	-1.07	1.53	-0.76	-1.23	-0.65	2.09	-0.94	-0.29	-0.54	2.40
Q8IWU6	SULF1	2.68	6.13	-0.39	-0.91	-0.87	1.93	-0.71	-0.62	-0.70	2.13	-0.29	-1.46	-0.05	1.96
Q16527	CSRP2	2.67	1.61	-2.91	0.57	1.36	2.73	0.15	-0.18	1.02	1.56	-0.72	-2.65	-2.64	1.72
Q9HCJ6	VAT1L	2.67	5.72	-0.85	-0.75	-1.29	2.47	-1.19	-0.19	-0.63	1.32	-0.99	-0.96	-1.17	1.55
O43175	PHGDH	2.67	1.46	-0.45	-3.41	-0.25	1.79	0.93	-2.11	-3.06	2.22	0.89	1.80	-0.34	2.00
P21333	FLNA	2.67	2.79	-0.36	0.83	0.16	2.34	-2.37	0.07	-0.65	1.86	-1.41	-0.39	-1.88	1.79
Q8NAB2	KBTBD3	2.67	1.70	NA	NA	-1.18	1.31	-0.39	-0.27	-0.04	2.28	-3.84	-0.88	1.00	2.00
Q92791	LEPREL4	2.66	3.41	-1.89	-0.19	-0.71	1.70	0.28	-0.13	-0.66	1.85	-1.33	-1.74	0.37	2.43
O94855	SEC24D	2.66	3.31	-1.40	-0.44	-1.90	1.86	0.19	0.02	-1.44	1.83	0.53	-0.18	-1.36	2.29
Q96AY3	FKBP10	2.66	1.79	-3.37	0.56	-0.93	1.93	0.20	1.08	-0.73	1.61	-2.80	-0.52	0.53	2.44
Q9Y2P4	SLC27A6	2.65	1.56	-1.14	-1.01	-0.58	5.76	0.33	-0.52	-0.67	-0.60	-0.78	-0.74	-0.86	0.81
Q6ZMP0	THSD4	2.65	1.77	-2.78	0.31	-3.18	2.63	0.56	1.12	0.28	0.85	-0.55	-0.77	-0.96	2.48
Q9NR12	PDLIM7	2.65	4.62	-1.09	-0.32	-1.61	2.17	0.03	-1.02	-1.12	1.73	0.10	-0.23	-0.71	2.07
P27105	STOM	2.65	1.74	-1.64	-0.86	-2.18	3.75	0.61	-0.80	-0.61	1.80	-0.62	2.10	-1.97	0.42
P33908	MAN1A1	2.65	1.76	-1.91	-0.46	0.02	2.46	1.27	0.28	-3.00	1.90	1.30	-1.08	-2.36	1.59
P23634	ATP2B4	2.64	2.43	-0.35	0.31	-3.22	1.76	0.04	-1.20	-0.29	2.58	-0.55	-1.33	0.63	1.61
Q12791	KCNMA1	2.64	1.32	-2.27	-4.92	-1.97	0.60	1.09	-0.82	1.52	2.22	-1.32	-1.61	-0.17	1.60
P15848	ARSB	2.63	3.16	-0.79	0.18	-0.35	2.51	-1.18	0.91	-0.47	1.56	-1.71	-1.88	-0.68	1.84

Q14865	ARID5B	2.63	2.31	-0.07	-0.57	-0.01	2.33	-1.79	-0.46	-0.15	2.02	0.43	-2.73	-2.55	0.91
O75718	CRTAP	2.62	3.16	-2.23	0.37	-0.87	2.16	0.06	-0.13	-0.38	1.60	-1.43	-1.47	0.19	2.15
Q8IXS6	PALM2	2.62	1.54	-1.40	-2.40	1.33	1.75	2.33	-0.38	-0.69	1.83	0.19	-2.58	-2.30	2.32
Q32P28	LEPRE1	2.62	3.06	-2.47	0.53	-0.64	1.91	-0.14	-0.63	-0.41	1.73	-1.20	-1.34	0.41	2.25
P08758	ANXA5	2.62	2.87	-2.10	0.10	-1.77	2.36	0.14	0.29	0.47	2.21	-0.75	-0.82	-1.45	1.32
Q9NVM1	EVA1B	2.60	2.90	-1.72	-0.36	-2.12	1.86	-0.96	0.29	0.00	2.38	-1.90	-1.27	-0.12	0.82
Q9NSY2	STARD5	2.59	2.58	-1.11	-0.33	-0.38	3.10	-0.10	0.42	-1.37	2.72	-0.99	-0.20	-1.77	0.02
Q8WXF7	ATL1	2.59	1.56	0.70	-1.75	2.58	2.63	-2.15	-0.48	-1.54	1.80	0.60	-1.01	-2.58	1.47
Q14934	NFATC4	2.59	2.98	-1.89	-1.02	-2.24	1.78	-1.06	0.34	0.62	1.68	-0.41	-0.71	-1.45	1.69
Q5T4B2	CERCAM	2.58	4.97	-0.32	-0.18	-1.33	2.01	0.24	-0.93	-1.18	2.21	-0.97	-0.71	-0.43	1.59
Q14956	GPNMB	2.57	1.41	1.72	2.05	-1.75	2.07	-0.51	-1.26	-1.37	3.74	-1.53	-1.93	-1.64	-0.18
P01033	TIMP1	2.57	3.65	-1.40	-0.42	-0.73	2.19	0.29	-1.12	-0.94	1.92	-1.37	-0.89	0.82	1.66
P19827	ITIH1	2.55	1.95	NA	-1.63	NA	2.67	-1.85	NA	-0.06	1.55	-1.12	1.02	-1.48	0.89
Q9Y2J2	EPB41L3	2.55	1.56	2.78	-1.40	-1.21	-0.15	-1.21	-1.16	-0.28	3.59	-1.76	-0.95	-1.19	2.07
A6NFQ2	TCAF2	2.55	2.75	-1.11	0.40	-2.07	2.98	-1.15	0.33	-0.49	1.06	-0.89	0.50	-1.24	1.69
Q6SZW1	SARM1	2.54	1.61	-1.35	-1.78	-1.98	3.77	0.98	-1.33	1.43	1.03	-1.26	-1.60	1.17	0.92
Q9NZU5	LMCD1	2.53	1.52	-1.00	-0.47	1.31	0.62	0.92	1.03	-0.62	3.03	-1.14	-2.36	-3.35	2.04
Q14112	NID2	2.53	3.42	-0.42	-1.72	-1.39	0.76	-0.27	0.48	-0.52	2.21	-0.58	-0.72	-0.55	2.72
Q8IVL5	LEPREL1	2.53	1.87	-2.09	-0.76	-1.40	3.66	-0.13	1.51	0.47	0.96	-0.32	-2.18	-0.77	1.06
Q9NTN3	SLC35D1	2.52	1.90	-1.62	0.57	0.76	2.73	-0.36	-0.15	-0.72	1.34	-0.94	-3.58	0.36	1.61
Q9Y572	RIPK3	2.52	1.70	-1.46	-4.69	-0.60	1.90	0.08	-0.85	-0.36	1.82	0.12	0.03	-0.22	1.19
Q5GJ75	TNFAIP8 L3	2.52	1.89	0.36	-1.28	-0.80	2.18	1.80	-1.30	-3.19	1.12	-0.11	-0.72	-0.41	2.36

O00391	QSOX1	2.51	2.51	1.49	0.50	-1.26	1.95	-0.12	-1.51	-1.57	2.34	-0.58	-1.29	-1.31	1.36
Q70UQ0	IKBIP	2.51	2.73	-2.60	0.52	-1.01	1.85	0.21	-0.31	0.16	1.75	-1.45	-1.13	-0.03	2.05
Q9GZX9	TWSG1	2.51	2.43	-2.66	-1.47	-1.30	2.63	-0.62	0.35	-0.41	1.87	-0.09	-0.32	0.88	1.14
P07093	SERPINE 2	2.51	2.49	-1.04	1.10	-1.41	2.36	0.24	0.43	-1.72	1.21	-0.35	-0.91	-1.99	2.06
Q12983	BNIP3	2.51	2.04	-1.45	-1.71	-2.03	1.70	0.26	1.05	1.51	1.41	-1.19	-0.71	-1.37	2.53
P54289	CACNA2 D1	2.50	2.27	-1.66	-0.54	-2.08	2.63	0.59	-0.49	0.02	1.92	1.31	-1.27	-1.49	1.08
Q6PCB8	EMB	2.49	2.57	-2.70	0.39	-0.62	2.13	0.03	-1.26	0.54	1.68	-1.37	-0.81	0.20	1.79
Q16585	SGCB	2.48	3.41	-1.92	0.62	-1.36	2.06	-1.10	-0.93	0.06	1.92	-0.64	-0.76	-1.11	1.10
Q02809	PLOD1	2.48	3.34	-1.26	-1.81	-1.13	1.38	-0.13	-0.58	0.13	1.62	-0.67	-0.77	0.64	2.58
Q9P291	ARMCX1	2.47	6.22	-1.20	-0.75	-0.93	1.67	-0.43	-0.20	-0.17	1.87	-0.56	-1.09	-0.86	1.81
Q16877	PFKFB4	2.47	3.16	-0.11	1.12	0.00	2.38	-1.39	-1.33	-1.36	1.62	-0.90	-0.72	-0.86	1.55
P0C626	OR5G3	2.47	1.98	NA	NA	-0.13	1.47	0.49	-1.96	NA	1.31	-1.00	-2.03	NA	1.85
Q9Y2K3	MYH15	2.46	3.66	-0.29	-0.60	-2.10	2.12	-0.75	-0.94	0.01	1.52	-0.39	0.46	-0.93	1.90
Q5MNZ9	WIPI1	2.45	5.33	-0.27	-0.23	-1.55	1.86	-0.56	-1.10	-0.24	1.79	-0.83	-0.42	-0.99	1.64
P09382	LGALS1	2.44	1.97	-3.48	0.77	-0.94	1.70	-0.35	0.62	-0.32	2.07	-1.66	-0.09	-0.05	1.72
Q8TC20	CAGE1	2.44	2.47	-2.86	0.39	-0.97	1.58	0.40	-0.30	0.38	1.72	-1.41	-0.88	-0.38	2.13
Q8WUP2	FBLIM1	2.43	2.45	-0.76	0.82	-2.15	2.14	-0.77	-0.44	-1.46	1.07	-0.75	1.12	-1.09	2.25
Q99685	MGLL	2.42	1.32	0.83	1.52	-2.74	1.53	-1.58	1.11	-2.30	2.96	0.58	-0.15	-2.72	0.97
Q9H694	BICC1	2.41	1.35	-2.09	-1.67	0.89	2.25	-0.86	3.13	-0.79	1.93	0.06	-2.01	-2.08	1.24
Q9P0K7	RAI14	2.41	2.01	-1.58	1.18	-1.00	2.23	-0.14	0.33	-0.94	1.62	-0.31	0.20	-3.14	1.58
Q8TBJ4	LPPR1	2.40	3.04	-0.87	0.21	-1.68	2.00	-0.96	-1.32	0.20	1.57	-1.53	0.69	-0.15	1.82
P21291	CSRP1	2.40	3.14	-0.26	-0.26	-1.61	1.37	-0.77	0.56	-0.03	1.57	-1.65	-0.02	-1.35	2.45

P08476	INHBA	2.38	2.34	-0.67	-0.97	-1.14	0.41	-1.55	-1.23	0.62	1.14	NA	-0.99	-0.13	3.32
Q9P266	KIAA1462	2.38	1.72	-1.36	0.74	-1.46	1.16	2.31	-1.09	-0.69	0.96	-1.27	-1.48	-1.06	3.24
Q5T9L3	WLS	2.38	2.21	-0.06	-0.77	-1.74	1.31	0.57	-1.72	-0.41	2.32	0.74	0.39	-2.36	1.72
Q5TCZ1	SH3PXD2A	2.38	2.83	-1.96	0.78	-0.85	1.46	0.06	-1.53	-1.48	1.96	-0.16	-0.19	-0.02	1.92
P23142	FBLN1	2.37	3.29	-1.90	-0.34	-0.57	2.55	-0.51	0.12	-0.22	1.87	-1.50	0.00	-0.42	0.92
O95340	PAPSS2	2.37	1.37	0.03	1.66	-3.27	1.65	0.22	0.05	1.12	1.72	-0.38	-2.10	-2.67	1.97
P13497	BMP1	2.37	2.66	-0.89	0.40	-1.05	1.81	0.58	-1.62	-1.43	0.99	-0.12	-1.63	0.26	2.49
Q7Z5L7	PODN	2.37	2.58	-0.94	0.07	-0.76	3.93	-0.32	-0.96	-0.55	0.83	-0.62	-0.31	-0.93	0.56
O94851	MICAL2	2.37	2.06	0.41	-0.50	-2.19	0.79	1.02	-1.72	-1.90	2.04	-0.38	0.51	-0.56	2.49
Q5KU26	COLEC12	2.35	2.95	-0.07	-0.14	-1.04	3.31	-0.91	-1.22	-1.05	1.12	-1.03	-0.75	-0.74	0.32
Q96CX2	KCTD12	2.35	1.76	-1.78	-0.60	-2.10	2.59	-0.57	0.78	-0.44	2.18	-0.19	1.67	-2.04	0.51
O00300	TNFRSF11B	2.34	3.99	-0.45	-0.88	-0.71	1.88	-0.02	-1.48	0.35	2.16	-0.13	-0.74	-1.19	1.22
P14543	NID1	2.33	2.21	-1.28	-0.67	-0.02	1.88	0.60	-1.24	-1.46	1.12	-1.62	1.60	-1.17	2.25
Q8NEY1	NAV1	2.33	2.37	-1.64	0.07	-1.11	1.62	0.73	-1.37	-1.82	1.82	-0.10	-1.10	1.10	1.81
P15289	ARSA	2.33	1.96	-2.53	0.97	-1.65	1.99	-1.27	1.07	-0.14	2.39	-0.85	-0.92	0.09	0.86
O43852	CALU	2.33	6.18	-0.44	-0.64	-0.80	1.65	-0.30	-0.06	-0.93	1.49	-1.04	-0.35	-0.66	2.10
P11047	LAMC1	2.32	3.30	-0.81	0.52	-0.99	1.57	-0.13	0.20	-0.20	1.22	-1.58	-1.12	-1.13	2.44
P35749	MYH11	2.32	1.57	-0.58	-0.32	-0.76	5.10	-0.60	-0.13	-0.88	-0.38	-0.68	-0.68	-0.86	0.42
O75051	PLXNA2	2.32	1.91	0.60	-0.32	-1.81	1.84	0.98	-2.16	-1.11	1.78	-1.48	1.32	-1.24	1.61
Q13641	TPBG	2.31	1.62	0.32	-1.56	-3.10	1.51	-0.75	1.10	0.58	2.12	-0.09	0.59	-2.28	1.58
Q8TAD7	OCC1	2.31	2.05	-1.42	0.47	0.03	2.01	0.38	0.56	-1.08	2.27	-0.06	-1.23	-2.85	0.91

Q8IZ07	ANKRD13A	2.30	3.45	0.67	0.04	-1.46	1.76	-1.24	-0.39	-0.88	2.35	-0.32	-0.87	-0.73	1.08
Q8NGA1	OR1M1	2.30	1.67	-2.41	1.52	-1.74	2.20	0.41	1.04	0.13	1.86	-1.24	-1.17	-1.81	1.10
Q9NZV1	CRIM1	2.30	2.13	-0.19	0.28	-3.06	1.23	-0.60	0.66	-0.24	1.85	-1.36	-0.97	0.31	2.08
Q9Y4G6	TLN2	2.30	2.04	-1.70	-0.08	-1.44	2.69	-1.23	1.11	-0.66	2.05	1.04	-1.01	-1.18	0.43
P84157	MXRA7	2.29	2.22	-2.16	0.88	-0.48	1.62	1.06	-0.33	-0.85	1.11	-1.71	-1.02	-0.53	2.43
Q9NVD7	PARVA	2.29	4.19	-0.32	0.55	-0.14	1.79	-0.58	-1.24	-1.29	1.56	-1.00	-0.43	-0.69	1.79
Q9NW15	ANO10	2.28	3.61	-0.87	0.52	-1.33	1.30	-0.55	-0.05	-1.16	2.36	-0.21	-0.25	-1.24	1.47
Q7Z3E5	ARMC9	2.28	3.37	-1.08	-0.12	-1.22	2.10	-0.66	-0.62	0.20	2.55	-1.10	-0.44	-0.07	0.49
O14495	PPAP2B	2.28	1.73	0.24	0.97	-0.02	3.41	-1.28	-1.05	-1.20	1.96	-0.11	-2.42	-0.01	-0.16
P55290	CDH13	2.26	2.06	0.10	-1.16	0.43	0.23	0.35	-1.32	-1.62	1.23	-0.20	-0.57	-1.50	3.49
Q5T7M9	FAM69A	2.26	3.33	-0.84	-1.27	0.05	2.41	0.82	-0.65	-1.01	1.78	-0.54	-0.64	-0.99	0.89
O60507	TPST1	2.26	3.35	-2.08	-0.52	-0.61	1.91	0.72	-0.64	-0.95	1.48	-0.43	-0.25	-0.32	1.68
P51688	SGSH	2.26	2.35	-0.24	-0.69	-2.01	2.51	-0.13	0.68	-1.13	2.34	-1.08	-0.78	0.31	0.23
Q9ULE4	FAM184B	2.26	1.86	-2.16	NA	0.24	1.72	-1.15	0.47	-0.88	1.00	-2.31	0.05	0.82	2.20
Q9HAV0	GNB4	2.25	2.77	-1.51	-1.47	-1.26	1.98	0.61	0.06	0.37	1.36	-0.86	0.27	-1.26	1.72
P07858	CTSB	2.25	2.04	0.05	1.23	-1.82	2.01	-1.45	-0.16	-1.67	1.81	-1.78	0.74	-0.21	1.23
Q7Z3J2	C16orf62	2.24	2.15	-1.47	-1.17	-1.85	1.63	0.42	1.15	0.98	1.82	-0.89	-1.10	-1.12	1.59
O14756	HSD17B6	2.23	1.38	-0.63	-0.30	-0.57	5.32	-0.67	-0.58	-0.30	-0.44	-0.33	-0.78	-0.86	0.13
P41226	UBA7	2.23	1.60	1.28	2.03	-1.55	2.50	-0.23	-1.33	-1.48	1.45	-0.45	-1.81	-1.46	1.06
Q8IX05	CD302	2.22	1.53	0.12	-0.29	-0.29	2.27	0.88	NA	-2.36	2.03	-0.87	0.76	-2.80	0.55
P52943	CRIP2	2.22	1.59	0.88	1.88	-1.83	1.04	-1.17	-0.94	-1.98	2.11	0.63	-1.99	-0.49	1.85
O14972	DSCR3	2.22	2.56	-1.58	-1.14	-1.27	1.65	-0.12	0.93	0.92	1.82	-0.91	-1.26	-0.57	1.53

Q9Y3M8	STARD13	2.22	3.59	-0.40	0.19	-1.15	1.75	-1.34	-0.10	0.43	1.51	-1.26	-0.24	-1.11	1.73
Q9ULI3	HEG1	2.22	2.11	-0.34	0.38	-2.66	2.00	0.44	0.10	-0.34	1.40	-0.12	-2.11	-1.21	1.31
Q7L0J3	SV2A	2.21	2.78	-1.18	-0.49	-0.03	1.29	0.71	-1.23	0.27	1.53	-1.09	-0.19	-1.93	2.08
P07942	LAMB1	2.20	2.43	-1.56	-0.37	-1.07	1.70	0.33	0.86	0.02	1.12	-0.47	-0.48	-2.21	2.12
P20719	HOXA5	2.20	1.41	2.34	-1.78	0.12	NA	-0.14	-1.19	-0.40	1.06	-0.91	-0.90	-0.74	2.54
P35475	IDUA	2.20	2.17	1.39	0.66	-1.35	2.38	-0.38	-0.79	-0.54	1.85	-1.23	-1.71	-0.98	0.71
Q8N6Y2	LRRC17	2.19	2.68	-0.38	0.05	-0.45	0.45	-0.82	-1.36	-0.49	0.99	-0.84	-0.23	-0.57	3.44
Q63ZY3	KANK2	2.19	2.85	-0.48	0.10	-0.70	1.94	-0.76	0.51	0.25	2.00	-0.59	-2.10	-1.18	1.00
P55285	CDH6	2.19	3.07	-1.57	NA	NA	1.31	-0.73	-1.53	-1.11	0.78	-0.93	0.33	-1.54	1.46
P35580	MYH10	2.19	1.47	-1.82	-3.13	1.54	1.79	-0.73	0.54	-0.57	0.99	-1.49	-0.25	0.99	2.14
Q14938	NFIX	2.19	1.65	-0.90	-2.19	0.33	1.84	0.82	-1.71	-1.79	2.03	0.09	-1.25	1.68	1.05
Q9UH03	Sep-03	2.18	3.43	-0.89	-0.12	-0.29	1.75	-1.69	0.16	-0.37	1.36	0.19	-1.54	-0.37	1.81
Q9H425	C1orf198	2.18	2.11	-0.55	-1.02	1.27	2.52	-0.78	-0.49	-2.63	1.43	0.08	-0.47	-0.31	0.94
P58335	ANTXR2	2.18	1.36	-1.48	-0.13	-3.82	1.07	0.71	-0.79	-0.98	1.29	-0.51	1.19	0.92	2.55
Q8NEU8	APPL2	2.16	3.75	-0.51	0.24	-1.42	1.61	-0.53	0.11	-0.40	2.14	-0.15	-1.06	-1.13	1.11
P07738	BPGM	2.15	2.14	-0.83	-2.05	-0.34	1.73	0.45	1.30	0.26	1.59	-1.71	-1.18	-0.72	1.52
Q13563	PKD2	2.15	3.07	-0.98	-0.64	-1.25	1.20	0.11	0.39	-0.01	1.95	0.30	-1.27	-1.49	1.68
A0AUZ9	KANSL1L	2.15	2.93	-0.32	0.30	NA	1.64	0.26	-0.68	-1.19	1.60	-0.24	-2.01	-0.81	1.44
O43293	DAPK3	2.15	3.91	0.18	-0.68	-1.09	2.09	-0.29	-0.51	0.20	1.22	-1.29	-0.24	-1.11	1.51
Q96JB1	DNAH8	2.14	2.20	-0.92	-1.53	-0.92	1.76	-0.83	-2.36	0.59	1.37	0.63	0.23	0.28	1.69
Q8N556	AFAP1	2.14	2.02	0.55	-0.79	-2.21	1.00	-0.28	-1.23	-1.53	1.07	-0.45	0.31	0.83	2.74
Q15942	ZYX	2.14	2.93	-0.80	0.01	-1.55	1.56	-0.41	-0.33	1.08	1.82	-1.34	-1.09	-0.37	1.43

Q53HC0	CCDC92	2.13	2.42	-0.13	0.89	-0.83	1.80	-0.89	-1.67	0.79	1.56	-1.06	-1.69	-0.19	1.42
Q53EP0	FNDC3B	2.12	2.93	-0.39	-0.02	-2.12	1.32	0.01	0.27	-0.63	1.15	-0.08	-1.06	-0.75	2.30
Q03135	CAV1	2.12	1.70	-0.74	-0.05	-2.66	2.04	0.37	-0.10	-0.66	2.12	-1.49	1.65	-1.08	0.61
Q9NZR1	TMOD2	2.12	3.66	-0.42	0.48	-0.55	1.87	-0.88	-0.01	-1.04	1.90	-0.10	-0.98	-1.28	0.99
Q9Y2G5	POFUT2	2.12	3.06	-1.08	-0.31	-1.90	1.43	-0.26	0.57	0.08	1.43	-1.01	-0.80	-0.05	1.90
O43310	CTIF	2.11	2.21	-1.39	-0.24	-2.17	1.81	0.60	0.72	0.34	1.57	-1.28	-1.22	-0.11	1.37
Q9Y2D5	AKAP2	2.11	1.57	0.97	0.93	-1.50	1.91	-0.06	-0.31	-0.68	1.77	-1.58	0.57	-3.09	1.07
Q9HCE0	EPG5	2.11	3.44	-0.87	0.18	-1.36	1.33	-0.31	-0.29	-0.06	2.10	-1.45	-1.01	0.13	1.21
Q96CV9	OPTN	2.11	1.76	0.23	0.46	-1.64	1.88	-0.04	1.06	-0.24	1.58	-3.05	-0.59	-0.92	1.28
Q14192	FHL2	2.10	2.54	0.00	0.37	-1.95	2.11	-0.21	0.74	-0.29	1.24	-0.83	-1.24	-1.32	1.39
Q5EB52	MEST	2.10	1.50	-0.89	-1.85	0.66	1.93	2.17	-1.09	-0.71	0.32	-0.55	-0.58	-2.17	2.37
Q9Y2E4	DIP2C	2.10	1.50	-1.18	1.33	-2.56	1.62	1.14	-0.01	-2.12	1.63	0.23	-1.74	-0.12	1.36
Q6NZI2	PTRF	2.10	2.15	-0.59	0.12	-2.40	2.01	0.00	0.86	-0.39	1.97	-1.65	-0.60	-0.05	0.74
Q5T6C5	ATXN7L2	2.10	2.76	-1.30	0.50	-0.12	1.42	-0.53	NA	-0.88	0.81	-1.34	0.12	-1.02	2.34
P45877	PPIC	2.09	1.62	0.52	1.00	-3.47	1.29	-0.28	0.09	-0.65	1.92	-0.78	0.16	-1.31	1.49
Q9UM47	NOTCH3	2.09	3.04	-1.38	-0.34	0.34	1.24	-1.12	-0.71	0.15	0.94	-1.06	-0.73	0.15	2.51
Q15124	PGM5	2.09	1.75	-0.72	0.27	-0.85	-0.41	-0.82	-1.20	-0.05	3.98	0.12	-0.99	-0.61	1.07
O94885	SASH1	2.07	2.01	0.78	-0.93	-1.66	1.40	-1.81	0.41	-0.72	1.59	-0.82	1.28	-1.19	1.67
P08962	CD63	2.07	3.42	0.47	-0.54	-0.36	1.26	-0.69	-0.91	-1.34	1.99	0.46	-0.60	-1.14	1.41
Q01432	AMPD3	2.07	1.55	1.91	0.42	-1.32	1.64	-0.43	-2.43	-2.24	1.55	0.12	-0.09	-0.59	1.46
Q9H7M9	C10orf54	2.06	1.47	0.30	-1.46	-2.33	2.16	-0.64	0.13	-1.71	1.63	1.23	1.43	-1.72	0.81
Q12923	PTPN13	2.06	2.25	-1.11	-1.81	-0.45	1.72	0.91	-0.67	0.27	1.65	-1.55	0.39	-1.46	0.99
A0A087WSZ9	TRAV30	2.06	4.21	-0.24	0.17	-0.22	1.50	-0.63	-0.02	-1.48	1.64	-0.85	-0.99	-0.39	1.50

P32189	GK	2.06	2.49	-1.48	-0.65	0.58	1.17	-0.14	0.16	-0.87	1.93	-1.48	-1.45	0.69	1.52
Q14764	MVP	2.06	1.79	0.96	0.26	-3.18	1.57	-0.61	0.44	-1.04	1.73	-0.07	-0.55	-0.84	1.33
O95302	FKBP9	2.06	4.48	-0.12	-0.33	-0.34	1.77	-0.60	-0.61	-0.87	1.72	0.27	-1.31	-0.72	1.14
Q9UKI2	CDC42EP3	2.05	2.23	-0.41	0.98	-1.16	2.11	-0.22	-1.08	-2.03	1.25	-1.21	0.65	-0.14	1.26
P00488	F13A1	2.05	3.10	-1.63	-0.54	-0.17	0.94	0.10	-0.32	0.45	1.71	-1.38	-1.00	-0.39	1.88
Q8TDZ2	MICAL1	2.05	3.10	-0.24	0.57	-1.46	1.20	-0.80	-0.18	-0.55	1.79	-1.31	0.38	-1.01	1.63
Q9BX67	JAM3	2.04	2.46	-1.38	0.35	-1.00	1.78	-1.52	-1.22	0.74	1.56	0.07	-1.16	0.36	1.20
P12814	ACTN1	2.04	2.23	-1.79	0.27	-0.21	1.58	-0.56	0.83	0.06	1.40	-2.25	-0.14	-0.80	1.62
Q86WA9	SLC26A11	2.02	2.03	-0.58	-1.75	-2.08	1.68	-0.35	1.47	-0.58	1.80	-0.95	-0.59	-0.10	0.75
Q8N2G6	ZCCHC24	2.02	2.01	NA	0.09	NA	1.88	-1.07	NA	NA	0.96	-1.12	NA	-1.35	0.61
P53814	SMTN	2.01	2.78	-0.95	-0.89	0.69	1.77	-0.23	0.64	-0.21	1.37	-1.55	-1.20	-0.83	1.39
Q13643	FHL3	2.01	1.38	-1.78	1.25	0.05	1.80	0.52	-0.18	-3.20	1.23	-1.59	0.87	-0.48	1.49
Q9UKP4	ADAMTS7	2.01	3.35	-0.70	NA	NA	2.00	-0.55	-1.61	-0.45	1.31	-0.15	-0.61	-0.14	0.91
O94929	ABLIM3	2.01	1.42	1.17	1.60	-2.08	1.05	0.36	-1.40	-1.92	1.80	-0.23	-0.05	-1.97	1.68
P06727	APOA4	2.01	1.36	0.32	1.19	-0.01	0.94	-1.29	0.37	-3.40	1.09	-2.07	-1.82	-0.88	1.47
P26572	MGAT1	2.01	4.84	-0.45	-1.18	-0.98	1.40	-0.92	-0.21	-0.15	1.61	-0.49	-0.11	-0.02	1.50
Q9Y4F1	FARP1	2.00	1.46	0.48	1.43	-0.11	2.78	-2.44	-0.98	-1.56	1.26	-0.42	0.64	-1.54	0.46
Q9H2D6	TRIOBP	2.00	2.98	-0.11	1.05	-0.94	1.90	-0.70	-0.49	-1.29	1.60	-0.48	-0.35	-1.18	1.00
Q9UBI4	STOML1	1.99	4.06	0.03	0.42	-1.22	1.44	-0.09	-0.54	-1.03	1.66	-0.73	-0.69	-0.64	1.39
Q9BQB6	VKORC1	1.98	3.02	-0.96	-0.41	-0.64	1.74	-0.25	0.77	-0.08	1.67	-1.27	-1.51	-0.12	1.05
Q14108	SCARB2	1.98	2.23	1.32	0.53	-1.34	1.32	-0.26	-0.36	-1.26	1.73	-0.54	-1.61	-0.93	1.41

Q9NY65	TUBA8	1.96	4.16	-0.69	-0.02	-0.52	2.34	-0.77	-0.31	-0.09	1.38	-0.55	-0.90	-0.57	0.70
Q53TN4	CYBRD1	1.96	2.02	-0.29	0.86	-2.16	1.74	-0.83	-1.35	-1.70	1.49	-0.20	-0.73	0.55	0.71
Q9UDY4	DNAJB4	1.96	1.52	-2.11	1.93	-1.71	1.00	-0.07	0.75	-0.51	1.45	-1.01	-1.50	-0.19	1.98
Q6AWC2	WWC2	1.96	2.79	-1.17	-0.55	-0.49	2.63	0.07	0.20	-0.73	0.88	0.05	-1.47	-0.57	0.81
Q08043	ACTN3	1.96	2.55	-1.52	-0.11	0.03	1.50	-0.68	0.36	0.06	1.49	-2.19	-0.18	-0.74	1.23
Q9Y2R2	PTPN22	1.96	1.36	NA	NA	-2.67	1.00	-0.20	-0.80	-0.40	2.08	NA	NA	0.40	0.59
P00387	CYB5R3	1.96	4.12	-0.59	0.52	-1.15	1.62	-0.56	-0.26	-0.69	1.70	-0.12	-0.78	-0.75	1.08
P16070	CD44	1.95	1.32	-0.68	1.46	-2.97	1.89	0.20	-0.96	-1.09	1.87	-0.65	-1.27	1.57	0.63
Q92819	HAS2	1.95	2.20	-1.15	0.57	-0.78	0.04	0.10	-0.51	-0.48	2.25	0.20	-0.52	-1.81	2.09
O00444	PLK4	1.94	2.27	-1.07	-0.31	0.44	0.71	-1.31	-1.84	-0.58	1.82	0.92	-0.06	-0.55	1.83
Q969X5	ERGIC1	1.94	3.49	0.54	-0.41	-0.83	1.21	-0.35	-0.43	-1.63	1.71	-0.19	-0.21	-0.87	1.45
Q8N3V7	SYNPO	1.94	1.62	-1.52	-0.28	NA	2.20	0.36	0.50	-0.66	0.48	-2.06	-1.80	NA	0.79
O95342	ABCB11	1.93	1.42	-1.84	-1.34	0.71	2.98	0.08	1.86	-0.80	0.22	-0.68	-1.27	-0.83	1.21
Q86Y82	STX12	1.92	4.77	-0.08	-0.73	-1.19	1.43	-0.49	-0.33	0.17	1.13	-0.48	-0.64	-0.56	1.77
Q13418	ILK	1.92	5.04	-0.68	0.09	-0.22	1.48	-0.34	-0.46	-1.00	1.26	-0.97	-0.06	-0.69	1.59
O76038	SCGN	1.92	3.24	-0.82	NA	NA	1.20	-0.81	-0.50	0.58	1.37	-0.48	-0.71	-1.31	1.46
Q9NSD4	ZNF275	1.92	1.35	-0.26	NA	NA	1.28	0.14	1.18	-1.96	1.92	-0.29	-0.15	-2.69	0.84
P67936	TPM4	1.92	3.97	-0.41	-0.12	-1.52	1.67	-0.17	0.31	-0.49	1.42	-0.41	-0.78	-0.72	1.22
Q5HYK7	SH3D19	1.91	5.48	-0.10	-0.23	-0.32	1.86	-0.53	-0.37	-0.95	1.41	-0.32	-0.71	-0.77	1.04
O75525	KHDRBS 3	1.91	2.54	-0.02	1.10	-0.84	1.09	-0.55	-0.75	-0.02	1.99	-1.28	-0.40	-1.55	1.22
Q53GG5	PDLIM3	1.91	1.45	-1.83	-0.97	-0.08	1.02	0.76	-1.49	0.87	0.61	-1.57	-1.49	1.25	2.57
P43005	SLC1A1	1.91	1.46	-1.61	2.35	-1.71	2.00	-0.22	0.12	-0.76	0.99	0.03	-0.60	-1.74	1.35

Q6ZUX7	LHFPL2	1.91	2.33	0.58	0.45	-1.26	1.13	0.55	-0.65	-0.82	0.86	-0.60	-1.33	-1.21	2.30
P35579	MYH9	1.90	3.60	-0.74	0.59	-0.23	1.52	-0.15	-0.50	-0.72	1.03	-0.85	-0.30	-1.37	1.74
Q04721	NOTCH2	1.90	1.71	-0.58	0.05	-2.54	0.96	0.34	-1.26	0.97	1.58	0.66	-1.46	-0.46	1.75
Q13557	CAMK2D	1.90	1.53	-0.25	-0.61	0.22	1.65	0.83	0.91	-1.60	2.17	-0.57	-0.36	-2.83	0.45
P25445	FAS	1.89	1.48	0.27	1.20	-3.31	1.62	-1.15	-0.79	-0.49	1.65	-0.87	0.27	-0.21	0.71
Q9Y6H5	SNCAIP	1.89	2.03	-1.59	NA	-0.57	0.54	-0.66	-0.14	-0.54	0.99	-0.90	-0.82	1.09	2.59
Q71UM5	RPS27L	1.89	2.26	-1.31	1.22	0.04	0.89	0.04	-0.10	-0.87	1.45	-0.80	-1.62	-0.85	1.91
Q11201	ST3GAL1	1.89	1.34	0.13	-0.90	-3.18	1.55	-0.19	-0.85	-0.41	0.59	1.11	1.28	-1.25	2.10
Q5TDP6	LGSN	1.88	1.75	-1.59	NA	NA	1.35	-0.17	0.63	-0.80	1.20	-1.60	-1.37	0.95	1.40
Q9P1W9	PIM2	1.88	2.23	0.23	0.79	-1.38	1.88	-0.07	0.64	-0.95	1.46	-1.23	-1.32	-0.94	0.90
P53634	CTSC	1.88	1.53	-0.50	-2.07	1.14	1.95	0.65	-0.38	-2.55	1.64	-0.59	0.23	-0.15	0.64
Q68CQ7	GLT8D1	1.88	2.45	-0.75	1.00	-0.37	0.73	-1.57	-0.14	-0.82	1.67	0.28	-1.22	-0.62	1.83
Q9BUF5	TUBB6	1.88	2.98	-1.09	0.12	-1.69	1.63	-0.40	-1.05	0.20	1.31	-0.45	-0.22	0.35	1.29
P51178	PLCD1	1.87	2.73	-1.05	0.28	-0.63	1.83	-0.20	-0.84	-0.04	2.18	0.14	-0.66	-1.22	0.21
Q9BZF3	OSBPL6	1.87	1.48	-1.97	NA	NA	0.20	0.07	-0.52	1.29	1.65	-0.24	-1.45	-1.11	2.08
P10767	FGF6	1.87	1.91	-0.54	0.23	1.39	2.06	-0.70	-0.40	-0.78	0.76	0.07	-1.77	-1.72	1.39
Q96A29	SLC35C1	1.87	1.55	0.18	0.46	0.78	1.71	-0.98	-1.76	-2.61	1.09	0.01	1.00	-0.82	1.56
Q5THR3	EFCAB6	1.87	3.69	-0.93	-0.72	-0.76	0.78	0.50	-0.72	-0.28	1.31	-0.21	-0.60	-1.03	1.92
Q9Y490	TLN1	1.86	3.72	-0.58	0.08	-1.10	1.33	-0.74	-0.48	0.63	1.42	-0.30	-0.67	-1.04	1.44
Q9UIY3	RWDD2A	1.86	2.19	-1.51	NA	NA	0.93	-0.48	-0.18	-0.45	2.02	-1.18	-0.95	0.85	0.96
Q92871	PMM1	1.86	2.15	-0.40	-0.06	-2.17	1.68	-1.18	0.93	0.37	1.48	-0.75	-0.87	-0.05	1.03
Q6NW40	RGMB	1.86	1.98	-0.95	-1.35	-0.36	0.13	-0.07	0.30	-0.72	2.64	-1.52	-0.36	0.86	1.41
P52848	NDST1	1.85	3.66	-0.76	0.45	-1.45	1.19	-0.27	-0.54	-0.85	1.46	-0.57	-0.49	0.07	1.43

O15119	TBX3	1.84	1.62	0.82	1.43	-0.30	0.39	-0.69	-0.93	-1.06	1.84	-1.71	-1.88	-1.16	1.48
P83111	LACTB	1.84	1.31	-1.27	0.76	-2.72	1.45	1.17	1.61	-0.74	1.34	-1.34	-0.93	-0.68	1.36
Q5BJH7	YIF1B	1.84	2.82	-1.38	0.50	-1.35	1.20	0.47	-0.24	-0.02	1.42	-0.47	-1.04	-0.62	1.53
Q12797	ASPH	1.84	1.45	-0.05	1.07	-1.04	1.39	-0.03	1.01	-2.45	1.73	-0.23	-0.12	-2.29	1.01
Q96CC6	RHBDF1	1.84	1.94	0.97	0.46	-1.44	1.81	-0.78	0.05	-1.56	1.65	-0.07	-0.11	-1.66	0.67
Q9H6N6	MYH16	1.83	3.85	-0.78	0.52	-0.38	1.48	-0.16	-0.49	-0.52	1.05	-0.88	-0.23	-1.21	1.60
Q9Y4C4	MFHAS1	1.83	3.06	-0.75	0.77	-0.62	1.43	0.13	-0.35	-0.78	1.06	-0.85	-0.20	-1.45	1.64
Q8N300	CCDC23	1.83	2.94	-1.78	0.46	0.10	1.41	-0.30	-0.95	0.03	1.44	-0.99	-0.46	-0.25	1.27
Q96MP8	KCTD7	1.83	2.50	-0.56	0.39	-0.42	0.83	-0.86	-1.05	-0.26	0.41	-0.10	-0.88	-0.37	2.88
O14613	CDC42EP2	1.83	1.72	-1.13	-0.02	-1.64	1.48	-0.73	-1.18	-1.56	1.34	1.35	1.10	-0.73	1.15
Q15629	TRAM1	1.82	1.74	0.58	1.35	-0.90	2.03	-0.79	-0.07	-2.17	1.17	-0.56	-0.14	-1.41	0.91
Q9NYU1	UGGT2	1.82	3.69	-0.01	0.22	-0.06	1.19	-1.10	-1.27	-0.01	1.26	-0.53	-0.75	-0.58	1.65
Q9BU23	LMF2	1.82	3.57	-0.68	0.60	-1.07	1.37	-0.73	0.15	-0.29	1.45	-1.01	-0.81	-0.27	1.28
Q9H3M7	TXNIP	1.82	1.68	0.34	-0.82	1.00	2.73	-0.23	-1.72	-1.64	0.82	0.45	-1.01	-0.42	0.56
Q96NE9	FRMD6	1.82	1.68	-1.05	1.40	-1.50	0.63	-0.53	0.26	-0.80	1.67	-1.64	0.87	-1.10	1.79
Q9UHC9	NPC1L1	1.82	2.39	NA	0.04	-1.49	1.93	-0.01	-1.05	0.03	0.36	-0.75	NA	-0.58	1.52
Q8TDI8	TMC1	1.81	3.01	-1.67	0.17	-0.45	1.48	-0.21	-0.71	0.25	1.04	-0.97	-0.73	0.24	1.56
ENST00000307662_NCI-H23_Mis:G411R	SYNPO	1.81	1.66	NA	-0.15	NA	1.86	-1.75	-0.28	NA	0.69	-0.93	NA	NA	0.56
Q8IVT5	KSR1	1.81	1.85	-2.08	-1.03	-0.98	1.73	1.07	-0.17	-0.32	0.18	-0.21	0.20	-0.54	2.15
Q86X52	CHSY1	1.81	2.75	-1.27	-0.30	-0.98	1.16	-0.33	-0.25	-0.08	0.57	0.41	-0.46	-1.50	2.10
O00462	MANBA	1.80	3.10	0.41	-1.24	-0.20	1.57	-0.30	-0.15	-1.44	1.25	0.26	-0.85	-0.53	1.23
Q96AQ6	PBXIP1	1.80	1.51	0.46	1.13	-1.67	1.65	-0.83	0.48	0.44	1.41	-1.33	-2.41	-0.32	0.98

P35609	ACTN2	1.79	1.77	-1.90	0.44	-0.42	1.43	-0.42	0.98	0.21	1.16	-2.25	-0.08	-0.59	1.44
ENST00000434452_DAN-G_Mis:S147T	DSC3	1.78	2.65	-0.74	NA	NA	1.16	-0.45	-0.17	-0.50	0.23	-0.82	-0.21	-0.86	2.35
Q9NWM8	FKBP14	1.78	2.07	-0.52	-1.69	-2.21	1.22	-0.12	0.39	0.25	1.04	-0.08	0.05	-0.09	1.75
Q86UU1	PHLDB1	1.78	2.62	-1.11	1.32	-0.25	1.29	-0.75	-0.39	-0.83	1.37	-1.03	-0.15	-0.82	1.35
P06756	ITGAV	1.77	2.09	-0.23	0.51	-2.02	1.77	-0.27	0.42	-0.32	0.60	0.15	-0.76	-1.46	1.61
Q92484	SMPDL3A	1.77	3.12	0.29	-0.42	-0.68	2.53	-0.57	-0.50	-0.45	1.04	-0.65	-0.30	-0.69	0.41
A1XBS5	FAM92A1	1.77	2.41	-0.43	-1.00	-0.12	2.73	0.51	0.02	-0.74	0.91	-0.94	-0.70	-0.58	0.34
O95210	STBD1	1.77	2.38	0.07	0.13	-1.03	1.85	-0.07	0.08	-0.78	1.07	0.60	-1.54	-1.44	1.06
Q17RC7	EXOC3L4	1.76	3.07	-0.02	-0.88	-1.02	2.08	-0.14	-1.30	-0.40	0.53	-0.17	-0.03	-0.01	1.36
Q9Y639	NPTN	1.76	4.26	-0.59	0.20	-1.05	1.25	-0.07	-0.26	-0.56	1.42	0.05	-0.86	-0.81	1.28
Q8WUH6	TMEM263	1.75	4.32	-0.97	-0.53	-0.78	0.89	-0.05	-0.41	-0.01	1.11	-0.12	-0.62	-0.45	1.94
O94979	SEC31A	1.75	6.39	-0.59	-0.18	-0.71	1.19	-0.10	-0.18	-0.54	1.31	-0.31	-0.62	-0.73	1.44
Q9BUT1	BDH2	1.75	1.49	-0.95	0.29	-1.25	2.15	1.57	-0.39	-1.65	1.20	0.34	0.01	-1.91	0.58
Q9NVA2	Sep-11	1.74	3.82	-0.30	0.33	-0.85	1.40	-0.32	-0.29	-0.69	1.45	0.18	-1.03	-0.95	1.07
Q96PE2	ARHGEF17	1.74	2.29	-0.23	0.57	-1.84	1.07	-1.04	-0.92	0.32	1.61	0.46	-0.84	-0.38	1.23
P20933	AGA	1.74	1.77	0.44	0.83	0.34	0.70	-0.63	0.46	-1.77	1.95	-0.96	-1.57	-1.04	1.26
Q6ZW31	SYDE1	1.74	1.41	-2.03	0.96	-1.16	1.07	-0.13	0.85	0.69	1.28	-2.06	-1.33	0.26	1.53
Q04771	ACVR1	1.73	2.67	-0.43	-0.20	-1.79	1.81	-0.16	0.09	-0.30	0.83	-1.22	0.33	-0.21	1.26
Q9P2E5	CHPF2	1.73	4.25	-0.84	-0.46	-0.83	1.30	0.03	-0.76	0.16	1.08	-0.80	-0.50	0.11	1.51
Q9H6X2	ANTXR1	1.73	2.38	-1.20	-1.33	-0.51	2.37	0.18	0.42	0.23	0.74	-0.55	-0.90	-0.23	0.77

P68133	ACTA1	1.72	2.78	-0.98	0.03	-0.48	1.96	-0.54	-0.84	-0.46	-0.02	-1.00	-1.14	0.09	1.46
Q9Y5V3	MAGED1	1.71	2.19	-1.61	0.04	0.78	1.07	-0.92	-0.48	-0.27	1.32	-0.66	-1.40	0.66	1.47
Q9BX10	GTPBP2	1.71	3.56	-0.39	-0.11	-0.97	0.92	-0.02	-1.21	0.36	1.77	-0.57	-0.40	-0.51	1.15
Q15149	PLEC	1.71	2.81	0.19	0.53	-1.50	1.10	-0.19	-0.66	-1.23	1.58	-0.65	-0.14	-0.19	1.16
Q8N129	CNPY4	1.70	3.07	-1.50	0.10	-0.27	1.56	0.17	-0.13	-0.16	1.60	-0.46	-1.10	-0.48	0.68
Q9ULC3	RAB23	1.70	4.28	-0.60	-0.17	-0.99	1.57	-0.13	-0.32	0.20	1.06	-0.98	-0.63	-0.21	1.20
Q9NQC3	RTN4	1.70	3.71	-0.28	-0.25	-1.31	1.10	-1.08	-0.05	-0.50	1.71	-0.19	-0.02	-0.15	1.01
Q01955	COL4A3	1.70	3.52	-0.50	-0.45	-0.13	1.05	-0.74	-1.42	0.00	0.91	0.03	-0.09	-0.52	1.86
Q9Y2E5	MAN2B2	1.70	1.98	0.13	1.17	0.00	1.24	-1.17	-1.18	0.21	1.48	-0.49	-1.83	-0.36	1.20
Q9GZQ8	MAP1LC 3B	1.69	2.56	-0.81	-0.69	-0.32	0.87	0.64	0.63	-0.90	1.08	-1.09	-1.08	-0.20	1.86
Q9UL01	DSE	1.69	2.33	-0.64	0.41	-1.09	0.85	-0.01	0.88	-0.27	1.45	-0.78	-0.74	-1.58	1.51
O75396	SEC22B	1.69	3.24	-0.83	-0.39	-0.79	1.44	0.33	-0.29	0.51	1.17	-0.37	-1.29	-0.68	1.20
Q6UX71	PLXDC2	1.69	2.85	-0.77	0.16	-0.41	1.17	0.13	-0.88	-1.10	0.91	-0.25	0.55	-1.22	1.72
P08590	MYL3	1.69	4.22	-0.26	0.17	0.07	1.44	-0.39	-0.47	-0.70	0.95	-0.42	-0.56	-1.20	1.42
Q8WWB7	GLMP	1.69	2.26	0.96	0.00	0.26	1.52	-1.02	-0.30	-0.34	1.63	-0.88	-1.48	-0.99	0.64
Q96RD6	PANX2	1.68	1.84	-0.16	1.14	-1.61	1.85	-0.13	-0.58	0.01	0.91	-0.33	-0.14	-2.00	1.03
P60660	MYL6	1.68	4.18	-0.42	0.46	-0.16	1.42	-0.45	-0.38	-0.82	0.89	-0.59	-0.50	-0.92	1.46
P23468	PTPRD	1.68	2.88	-0.42	0.74	-0.99	1.35	-0.08	-0.38	-0.33	0.99	-0.65	-0.13	-1.52	1.43
Q9GZT4	SRR	1.68	1.58	-1.75	0.11	-1.05	1.46	-1.24	0.02	-0.89	1.58	-0.04	-0.77	1.84	0.74
Q04446	GBE1	1.68	1.78	-1.05	0.04	-0.62	1.22	-0.10	0.78	-0.71	1.08	-2.12	-1.02	1.02	1.48
Q9H0X9	OSBPL5	1.67	1.68	0.70	0.39	-1.45	1.19	-1.82	-1.90	-0.85	1.41	-0.08	0.54	-0.23	0.85
P14209	CD99	1.67	2.18	-0.94	0.65	-0.18	0.84	-0.73	-1.18	-1.21	1.34	-1.44	0.63	0.15	1.42

Q9UBF6	RNF7	1.67	2.62	0.03	-0.67	-1.11	NA	0.00	-0.38	0.40	0.97	NA	-0.66	-0.29	1.70
Q9UH99	SUN2	1.67	3.36	-0.32	0.46	-1.15	1.34	-0.64	0.29	-1.01	0.98	-0.47	-0.57	-0.35	1.43
Q93052	LPP	1.66	1.88	0.77	0.48	-1.27	2.03	-0.70	0.05	-1.52	1.13	0.42	-0.84	-1.13	0.58
Q96J94	PIWIL1	1.66	4.47	-1.07	NA	NA	0.75	-0.44	-0.36	-0.53	1.40	-0.42	-0.38	-0.29	1.35
Q9UP95	SLC12A4	1.66	2.42	-1.46	0.07	-0.07	1.22	-0.77	-0.09	-0.22	1.23	-1.74	0.32	0.22	1.29
Q16739	UGCG	1.66	2.58	0.48	-0.58	-1.00	0.31	-0.57	0.22	-0.16	1.68	-0.22	-0.53	-1.38	1.75
Q9H254	SPTBN4	1.66	2.49	0.02	0.97	-0.94	1.38	-0.17	-0.71	-1.22	1.36	-0.10	-0.25	-1.32	0.99
Q9BRS8	LARP6	1.66	1.89	-2.26	-0.32	-0.41	0.54	0.14	-0.45	-0.19	1.57	-0.74	-0.57	1.07	1.62
O75881	CYP7B1	1.65	1.91	-1.35	-1.30	NA	1.29	-0.62	-0.86	-0.71	0.63	-0.22	1.09	0.39	1.67
P11717	IGF2R	1.64	2.80	0.78	-0.34	-0.48	1.09	-0.59	0.03	-1.08	1.11	-1.34	-0.66	-0.02	1.49
Q9HAU4	SMURF2	1.64	2.30	-0.64	0.65	-1.22	1.38	-0.68	-1.05	-0.19	1.59	-1.28	0.23	0.48	0.73
P24385	CCND1	1.64	1.49	0.76	0.32	-1.36	0.40	0.26	-1.58	0.36	1.98	0.07	-1.71	-1.62	1.02
O43795	MYO1B	1.63	1.35	0.15	-0.80	0.30	2.18	0.46	0.63	-0.96	0.69	-0.95	0.35	-2.86	0.81
Q14393	GAS6	1.63	1.96	0.24	1.35	-0.35	0.93	-1.29	-0.23	-0.62	1.95	-0.69	-1.30	-0.79	0.80
O60568	PLOD3	1.63	2.52	0.08	-1.63	-0.54	0.98	-0.31	-1.04	-0.07	1.36	-0.87	0.01	0.69	1.33
Q9Y2C2	UST	1.63	1.41	-2.11	-0.19	-1.26	1.18	1.25	-1.12	-1.00	0.72	0.44	0.91	-1.15	1.60
Q8TDX7	NEK7	1.63	3.53	0.03	0.04	-0.70	0.79	-0.19	-0.23	-1.00	0.84	-0.52	-0.33	-0.76	2.03
O95479	H6PD	1.63	2.29	0.35	0.66	-0.62	1.39	-1.56	-1.41	-0.65	1.31	-0.44	-0.17	0.18	0.96
Q9H939	PSTPIP2	1.62	1.88	-0.60	0.12	0.35	1.56	0.25	0.82	-1.98	1.41	-1.14	-0.86	-0.60	0.68
P38936	CDKN1A	1.61	2.73	-0.81	1.04	-0.67	1.21	-0.79	-1.03	-0.14	1.33	-0.69	0.02	-0.76	1.04
Q8NDN9	RCBTB1	1.61	3.03	-0.65	0.57	0.28	1.49	-0.58	-0.27	-0.34	1.38	-0.26	-0.76	-1.30	0.86
Q99439	CNN2	1.61	2.89	-0.20	-0.39	-0.26	1.46	-0.78	-0.18	0.85	1.13	-0.47	-0.88	-1.31	1.02
O75953	DNAJB5	1.61	1.50	-1.96	-0.12	-0.90	0.75	-0.26	0.30	1.54	1.30	-1.61	0.18	-0.79	1.57

O75382	TRIM3	1.61	2.95	-0.27	0.47	-0.92	1.01	-0.77	0.41	-0.09	1.34	-1.24	-0.76	-0.56	1.23
Q6ZXV5	TMTC3	1.59	3.01	-0.60	-0.25	-1.50	1.35	-0.07	0.45	-0.09	1.09	0.03	-0.82	-0.73	1.14
Q8TCT8	SPPL2A	1.59	3.07	-0.57	-0.42	-0.12	0.67	-0.29	0.42	0.11	1.30	-0.69	-0.75	-1.35	1.59
O60503	ADCY9	1.59	2.54	0.13	0.09	-1.03	2.18	0.05	-0.59	-0.95	1.16	-0.29	-0.83	-0.40	0.16
ENST00000263036_CAPAN-1_Mis:E515Q	OPTN	1.59	1.67	0.38	0.84	-1.40	1.33	0.09	0.88	-0.70	1.45	-1.49	-1.39	-0.80	0.79
Q969M3	YIPF5	1.59	3.00	-0.29	0.52	-1.21	1.02	0.23	-0.15	-0.71	1.17	-0.18	-1.00	-0.79	1.38
P04899	GNAI2	1.58	2.54	-0.60	1.06	-0.25	1.06	-0.42	-0.86	-1.21	1.04	-0.85	0.13	-0.57	1.46
Q96EQ0	SGTB	1.58	2.16	-1.22	-0.50	0.18	1.52	0.12	1.15	-0.61	1.24	-1.21	-0.83	-0.64	0.80
P42892	ECE1	1.58	1.98	-0.47	-1.47	-1.50	0.56	0.18	-0.49	-0.15	1.35	-0.40	-0.38	1.13	1.64
P32856	STX2	1.58	2.15	-1.48	0.99	-0.30	1.27	0.14	-0.26	0.09	1.26	-1.18	-1.19	-0.37	1.02
Q8WVL7	ANKRD49	1.58	2.31	0.57	-1.00	-0.86	1.42	-1.32	-1.17	0.14	1.28	-0.17	0.52	-0.27	0.85
O60238	BNIP3L	1.58	1.35	-0.54	-0.03	-1.81	1.48	-1.58	0.99	1.20	1.04	-0.21	-1.82	0.23	1.02
O15254	ACOX3	1.58	2.89	-0.62	0.72	-0.89	1.43	0.22	-1.10	-0.42	0.67	-0.35	-0.48	-0.63	1.45
Q5TBA9	FRY	1.58	2.54	-0.17	-0.51	-1.01	2.12	-0.56	-0.33	-0.11	1.27	-0.02	-0.77	-0.96	-0.13
P48059	LIMS1	1.57	2.99	-0.75	0.32	-0.19	0.86	0.06	-0.18	-1.27	1.01	-0.61	0.05	-0.98	1.67
Q8WWZ7	ABCA5	1.57	1.74	0.40	0.80	-2.24	1.18	-0.09	-0.77	-1.12	1.63	-0.10	-0.65	-0.30	0.54
Q969H8	MYDGF	1.57	3.75	-0.40	-0.76	-0.71	0.83	-0.30	-0.65	0.62	1.22	-0.19	-0.53	-0.61	1.48
P0C0L4	C4A	1.57	2.01	0.83	-0.44	-0.30	1.66	-0.84	-0.47	0.64	1.26	-1.75	-0.91	-0.30	0.61
Q8IV08	PLD3	1.57	2.05	-1.26	-1.02	-0.85	1.25	0.50	0.74	0.20	1.27	-0.12	-1.54	-0.18	1.01
Q63HR2	TNS2	1.56	1.89	-1.56	NA	NA	1.55	-0.10	-0.05	-0.87	1.70	-0.69	0.31	-0.33	0.03
Q8IWB7	WDFY1	1.56	4.54	0.02	-0.14	-0.60	1.46	-0.45	-1.04	-0.37	0.94	-0.33	-0.08	-0.69	1.05

Q8N264	ARHGAP24	1.56	2.24	0.17	-0.49	-1.14	1.02	-0.12	0.46	-1.36	0.99	-1.31	0.54	-0.41	1.44
Q9P0V3	SH3BP4	1.55	2.45	0.27	-0.08	-0.59	0.85	0.76	-0.40	-0.96	1.66	-0.75	-0.33	-1.42	0.99
Q9Y240	CLEC11A	1.55	1.78	-0.88	0.83	-0.41	1.34	-0.65	-1.84	1.19	1.27	-0.62	-0.51	-0.60	0.89
O94850	DDN	1.55	3.46	-0.58	0.16	NA	1.30	-1.09	-0.35	-0.30	1.35	0.06	-0.90	-0.40	0.74
O95394	PGM3	1.55	4.82	-0.23	-0.05	-0.86	0.87	-0.56	-0.21	-0.52	1.10	-0.71	-0.03	-0.32	1.52
Q7Z7L7	ZER1	1.55	5.05	-0.50	0.07	-0.76	0.99	-0.29	-0.61	-0.12	0.89	-0.49	-0.66	-0.37	1.51
Q8NBJ9	SIDT2	1.54	2.32	-0.47	NA	NA	1.09	-0.51	0.19	-0.29	1.57	-0.25	-1.72	-0.19	0.57
Q13454	TUSC3	1.54	1.33	-1.51	-1.49	-1.53	0.61	0.87	0.74	-0.02	0.90	0.96	-0.94	-1.29	1.70
Q9Y5Q0	FADS3	1.54	4.24	-0.37	-0.52	-0.31	0.77	-0.66	-0.46	-0.87	1.41	0.11	0.20	-0.59	1.28
O00213	APBB1	1.53	1.59	-1.62	-1.53	-1.35	0.98	-0.54	1.06	-0.12	1.21	-0.06	-0.11	0.83	1.25
Q9UMX1	SUFU	1.53	2.28	-0.10	1.32	-0.61	1.22	-0.84	-0.17	-0.47	0.86	-0.52	-1.13	-0.73	1.41
A0A087X1C5	CYP2D7	1.53	3.27	-0.80	-0.08	-0.72	1.33	-0.16	-0.14	-0.78	1.33	-0.70	-0.69	0.64	0.77
Q16706	MAN2A1	1.52	2.53	0.27	0.05	0.24	0.88	0.35	-1.20	-1.06	0.97	-1.03	-0.53	-0.52	1.59
Q8N3Y1	FBXW8	1.52	3.06	-0.16	0.61	-0.98	1.10	-1.09	-0.80	0.07	1.26	-0.61	-0.29	-0.18	1.06
O60504	SORBS3	1.52	2.96	-0.69	0.47	-1.19	1.43	-0.48	-0.02	-0.81	1.29	-0.47	-0.48	0.26	0.70
P46939	UTRN	1.52	1.42	-0.61	0.40	-2.57	1.31	0.08	1.27	-0.22	1.30	-1.08	-0.25	-0.46	0.81
O43739	CYTH3	1.52	1.99	0.92	-0.02	-0.62	1.20	0.03	-0.92	-1.43	1.25	-0.31	0.38	-1.45	0.97
O60268	KIAA0513	1.52	1.44	-0.56	0.97	-2.56	1.43	0.68	-0.04	-0.35	1.32	-0.59	-1.09	-0.47	0.47
O75298	RTN2	1.52	1.93	-0.15	-0.86	-1.42	1.28	-0.37	0.82	0.80	1.39	-0.24	-0.64	-1.35	0.74
Q9NPB8	GPCPD1	1.52	1.79	-0.83	-0.12	0.55	1.37	-1.12	-2.15	-0.16	1.07	0.07	-0.10	0.62	1.03
P41221	WNT5A	1.51	2.74	-0.07	-0.29	-1.59	0.78	-0.54	-0.45	0.30	1.09	-1.33	-0.54	-0.93	0.85
P17252	PRKCA	1.51	1.70	-1.14	0.56	-0.27	0.76	1.24	-0.80	-0.42	1.66	-1.29	0.07	-1.35	0.97

P51805	PLXNA3	1.51	3.61	0.39	0.02	-0.27	1.16	-0.76	-1.18	-0.58	1.03	-0.39	-0.18	-0.45	1.21
Q5VTQ0	TTC39B	1.51	2.58	-0.88	-0.55	-1.05	1.53	-0.45	-0.28	-0.30	1.08	0.52	-1.01	0.61	0.78
Q86V48	LUZP1	1.50	2.51	-0.31	-0.51	-0.92	1.32	-0.06	-0.43	0.80	0.62	-1.17	0.14	-0.92	1.43
O14817	TSPAN4	1.50	2.58	-0.81	0.77	-1.17	1.46	-0.20	-0.67	-0.16	1.26	-0.98	-0.14	-0.01	0.65
P13716	ALAD	1.50	1.95	0.71	0.63	-1.04	1.78	-1.63	-0.54	-0.22	1.16	-0.44	-0.58	-0.27	0.43
Q96JJ7	TMX3	1.49	1.90	-1.71	0.52	-1.09	1.17	0.78	-0.86	0.41	0.92	-0.49	-0.65	-0.26	1.27
Q15436	SEC23A	1.49	3.23	-1.18	0.12	-1.19	1.00	0.10	0.01	-0.49	1.07	-0.18	-0.35	-0.21	1.29
P23381	WARS	1.49	1.32	-0.71	-0.85	-0.46	2.11	0.26	-0.17	-1.32	0.82	-1.00	-1.09	2.00	0.42
Q6ZMZ3	SYNE3	1.49	1.75	-1.01	0.74	0.54	1.48	0.36	-0.35	-1.05	1.86	-0.64	-0.92	-1.04	0.01
Q5NDL2	EOGT	1.49	2.48	-0.92	0.14	-1.28	1.04	-0.55	0.70	-0.04	1.10	-1.08	-0.64	0.02	1.12
Q96HD1	CRELD1	1.49	1.40	-0.13	1.21	-0.45	0.91	0.49	0.67	-0.45	1.62	-1.98	-1.38	-1.14	0.87
O95070	YIF1A	1.49	2.56	0.23	0.39	-1.40	0.94	-0.04	0.06	-1.02	1.06	-0.18	-0.83	-0.81	1.27
P60981	DSTN	1.49	3.50	0.09	-0.08	0.09	1.34	-0.65	-0.64	-0.45	0.62	-0.87	-0.88	0.06	1.39
Q9NZN3	EHD3	1.48	2.03	-1.17	-1.06	-1.16	0.60	0.00	0.52	0.38	1.43	-0.67	0.59	-0.77	1.31
Q9UKJ5	CHIC2	1.48	4.98	-0.64	0.18	-0.84	1.04	-0.37	-0.30	-0.43	1.36	-0.26	-0.46	-0.47	0.86
P40189	IL6ST	1.48	1.89	-0.40	0.34	-1.71	1.69	-0.29	-0.37	1.06	1.03	-0.29	-0.82	-0.87	0.61
O60331	PIP5K1C	1.48	2.35	0.06	1.00	-0.74	1.00	-0.45	-1.18	0.08	1.40	-0.67	-1.03	-0.33	0.96
Q8IXJ9	ASXL1	1.48	1.62	-0.33	-0.76	-2.67	1.17	-0.38	-1.05	0.46	0.83	0.11	0.02	-0.01	0.90
Q6NYC8	PPP1R18	1.47	1.49	-0.80	0.37	-1.32	1.11	-0.35	-0.06	0.90	1.09	-2.36	0.34	-0.04	1.11
Q9NQ66	PLCB1	1.47	2.43	-0.86	-0.19	-1.41	1.53	-0.49	-0.69	0.60	1.13	0.38	-0.10	-0.56	0.66
Q9H173	SIL1	1.47	3.12	-0.42	0.40	-0.48	1.09	-0.07	-0.53	-0.92	0.97	-1.09	-0.54	0.35	1.25
O60513	B4GALT4	1.47	1.89	0.33	0.87	-1.14	1.71	-0.64	0.37	-0.87	0.33	-1.23	-0.33	-0.68	1.26
P04179	SOD2	1.47	3.38	-0.51	-0.46	-0.46	1.53	-0.24	0.21	-1.02	0.32	-0.27	-0.46	-0.10	1.45

A1A4S6	ARHGAP10	1.47	3.70	-0.05	-0.03	-0.43	1.20	-0.14	-0.50	-1.11	1.12	0.02	-0.14	-1.02	0.95
Q71U36	TUBA1A	1.47	3.34	-0.82	0.20	-0.48	0.91	-1.01	-0.04	0.16	1.17	-0.44	-0.90	0.04	1.22
Q8NHP7	EXD1	1.47	4.66	-0.38	0.34	-0.66	1.11	-0.18	-0.62	-0.43	1.27	-0.56	-0.64	-0.29	0.88
Q96DZ1	ERLEC1	1.46	2.98	-0.06	0.23	-0.41	1.11	-1.24	0.47	-0.21	1.10	-0.52	-0.68	-0.88	1.09
P10070	GLI2	1.46	3.28	0.35	NA	NA	0.97	-0.29	-0.62	-0.34	0.77	-0.77	-0.88	-0.52	1.33
Q96F46	IL17RA	1.46	5.19	-0.11	-0.08	-0.66	0.91	-0.15	-0.65	-0.20	0.92	-0.57	-0.51	-0.36	1.46
O75503	CLN5	1.46	1.89	0.24	0.85	0.85	1.25	-1.25	-1.03	-0.82	0.83	-0.90	-0.67	-0.56	1.21
Q15404	RSU1	1.45	3.70	-0.60	-0.13	-0.87	1.20	0.21	-0.27	0.09	0.94	-0.92	-0.71	-0.08	1.14
Q9ULV4	CORO1C	1.45	4.68	-0.33	0.28	-0.29	0.96	-0.17	-0.62	-0.57	1.25	-0.71	-0.66	-0.19	1.06
Q9UKY4	POMT2	1.45	2.70	-0.37	-0.30	-1.22	1.20	-0.09	-1.04	0.26	0.85	-0.93	0.34	0.07	1.22
Q8IVH4	MMAA	1.45	2.25	0.00	0.32	-1.07	1.37	0.37	-0.78	-0.74	1.25	-0.07	-1.46	0.16	0.64
P60709	ACTB	1.45	2.01	-0.44	-0.94	-0.68	1.22	-0.20	-0.20	0.89	0.58	-1.40	-1.13	0.43	1.32
P16278	GLB1	1.45	1.90	-0.04	1.00	-0.31	1.28	0.42	-0.62	-1.56	0.96	-0.85	-1.19	-0.10	1.01
Q9HC07	TMEM165	1.45	2.77	-0.51	0.08	0.23	0.80	-0.24	-1.27	0.26	0.77	-0.70	-0.36	-0.74	1.69
Q9UJ70	NAGK	1.44	3.00	0.23	-0.16	-1.26	1.07	-0.73	0.34	-0.31	1.25	-0.23	-0.22	-0.90	0.92
Q8WYL5	SSH1	1.44	4.22	-0.85	-0.75	-0.72	0.91	-0.15	-0.27	-0.20	0.99	-0.68	0.20	-0.20	1.22
Q92504	SLC39A7	1.44	3.62	-0.47	0.06	-0.98	0.99	-0.67	0.39	-0.05	1.01	-0.61	-0.27	-0.63	1.23
Q5W0V3	FAM160B1	1.44	1.78	-0.16	0.42	-1.47	1.01	0.46	0.79	-0.75	1.10	-1.45	-0.11	-0.95	1.13
P20336	RAB3A	1.44	3.11	-0.78	-0.44	-1.29	1.15	0.19	-0.05	-0.49	0.55	0.10	-0.51	-0.39	1.39
Q92963	RIT1	1.44	1.52	-0.30	0.63	-2.71	1.26	-0.36	0.05	-0.69	0.66	0.04	-0.18	-0.90	0.91
Q9Y2G0	EFR3B	1.43	1.43	-1.18	-1.33	-0.90	0.65	0.63	0.29	-0.86	1.23	-1.48	1.11	0.49	1.35

P52306	RAP1GDS1	1.43	3.52	-0.21	0.26	-1.21	0.88	0.12	-0.38	-0.54	1.38	-0.55	-0.46	-0.26	0.96
Q8TE60	ADAMTS18	1.43	1.54	-1.13	-0.76	-0.77	1.66	-0.95	-0.30	-0.21	-0.59	0.39	-0.12	0.61	2.15
Q86YR5	GPSM1	1.43	2.41	-0.58	-0.27	-0.65	0.77	-0.46	-1.17	-0.74	1.53	-0.45	0.12	0.98	0.92
Q15293	RCN1	1.43	2.29	0.80	0.27	-0.52	0.93	-0.18	-0.99	-1.36	1.31	-0.04	-0.81	-0.37	0.98
Q8TEJ3	SH3RF3	1.43	2.51	-0.95	-0.98	-0.35	1.10	0.62	-0.92	-0.86	1.37	0.22	0.05	-0.05	0.74
Q09328	MGAT5	1.43	2.27	-0.45	-1.06	0.69	1.57	-0.58	-0.09	-0.44	1.54	-0.75	0.08	-0.70	0.07
Q8NBL1	POGLUT1	1.43	3.03	0.05	-0.14	0.29	1.09	-1.12	-0.59	-0.22	1.25	-1.00	0.17	-0.65	0.87
Q9BQ49	SMIM7	1.42	2.26	0.28	NA	NA	1.07	-1.44	-0.12	-0.19	1.03	-0.27	-0.07	-1.18	0.89
Q9UKK3	PARP4	1.42	1.44	1.04	0.56	-2.36	1.15	-0.55	-0.33	-1.18	1.16	0.15	-0.14	-0.39	0.89
Q9H2Z4	NKX2-4	1.42	1.37	0.03	0.20	0.83	1.06	-0.95	0.30	-2.63	1.45	-0.83	-0.19	0.04	0.70
Q92930	RAB8B	1.42	1.54	-1.97	0.17	-0.79	1.28	0.87	0.78	-0.55	1.31	-0.24	-0.25	-1.21	0.61
Q9ULH1	ASAP1	1.42	2.48	-0.42	0.14	-1.54	1.43	-0.74	0.38	-0.19	1.24	-0.67	0.03	-0.19	0.53
P49716	CEBPD	1.42	3.04	-0.25	-0.51	-0.86	1.49	-0.50	0.51	0.24	0.88	-0.46	-0.98	-0.39	0.82
Q6DD88	ATL3	1.42	1.37	0.51	0.34	-2.23	0.85	0.01	1.00	-0.06	1.29	-0.38	-1.42	-0.97	1.04
Q96S06	LMF1	1.42	2.28	0.38	-1.56	-0.41	1.35	-0.56	-0.69	-0.32	1.20	-0.14	0.68	-0.57	0.64
O75083	WDR1	1.42	3.33	-0.70	0.62	-0.86	1.07	0.07	-0.18	-0.59	0.91	-0.49	-0.44	-0.63	1.21
P05556	ITGB1	1.41	1.75	-0.23	1.23	-1.81	0.66	0.06	0.05	-0.46	1.28	-0.79	-0.48	-0.75	1.25
P60059	SEC61G	1.41	4.00	-0.88	-0.20	-0.50	0.83	-0.73	-0.69	-0.16	0.98	0.06	0.02	-0.10	1.38
P30533	LRPAP1	1.41	2.01	-1.30	0.58	0.04	1.37	0.21	-0.86	0.36	1.14	-1.41	-0.27	-0.52	0.66
Q99704	DOK1	1.41	1.95	-0.39	0.83	0.47	1.13	-0.21	-1.18	-1.25	1.11	0.36	-0.75	-0.97	0.96
Q494V2	CCDC37	1.41	1.94	0.08	0.09	0.90	2.05	-0.92	-0.94	-0.54	0.72	-0.22	-0.94	-0.67	0.40

Q9NP61	ARFGAP3	1.41	2.41	-1.01	0.47	-0.98	0.79	-0.50	0.39	0.03	1.01	0.04	-1.15	-0.46	1.37
O00159	MYO1C	1.40	2.07	0.04	-0.18	-1.61	1.43	-0.81	0.73	0.06	1.33	-0.77	-0.40	-0.21	0.39
Q8NBS9	TXNDC5	1.40	2.57	-0.64	-0.62	-0.19	1.14	0.17	0.32	-0.78	0.73	-1.47	-0.14	0.19	1.29
Q9H299	SH3BGRL3	1.40	2.17	-0.24	0.45	-0.82	0.76	0.93	-0.30	-0.47	1.46	-0.98	-0.64	-1.08	0.94
O15173	PGRMC2	1.40	2.30	-0.29	0.30	-1.56	1.18	0.30	0.13	-1.01	1.06	0.11	-0.34	-0.79	0.91
Q9Y6R0	NUMBL	1.40	1.70	-1.06	-0.03	-1.67	1.20	0.81	0.02	0.05	1.15	-0.56	-1.25	0.55	0.79
O94923	GLCE	1.39	2.05	-0.45	0.57	-1.19	0.78	0.68	0.12	-0.65	1.35	-0.14	-0.84	-1.25	1.00
Q15121	PEA15	1.39	2.38	0.10	0.44	-1.62	0.85	-0.86	-0.16	0.23	1.14	-0.21	-0.57	-0.49	1.14
O14950	MYL12B	1.39	3.65	-0.51	0.34	-0.20	1.24	-0.34	-0.59	-0.32	0.82	-0.46	0.03	-1.09	1.07
Q7Z429	GRINA	1.39	2.50	-0.44	0.09	-0.76	1.04	-1.47	-1.27	0.12	0.93	-0.53	0.22	-0.41	0.72
Q12893	TMEM115	1.39	3.19	-1.20	0.16	-0.97	0.78	-0.01	-0.05	0.01	1.05	-0.49	-0.41	-0.36	1.23
Q13637	RAB32	1.38	1.39	-0.83	-1.82	-0.83	0.53	0.55	0.25	-0.89	1.11	-1.10	1.09	0.46	1.47
Q86VS8	HOOK3	1.38	2.39	-0.11	0.04	-1.09	0.84	0.22	-0.17	-0.25	1.10	-0.41	-1.61	0.25	1.17
O60673	REV3L	1.38	3.18	-0.80	NA	NA	1.32	-0.14	-0.30	-0.27	1.15	-0.76	0.05	-0.68	0.43
Q16643	DBN1	1.38	3.05	-1.37	-0.32	0.01	1.20	-0.35	-0.17	-0.17	0.78	-0.88	0.12	0.03	1.13
Q9Y4B5	MTCL1	1.38	1.60	-1.36	0.70	0.42	0.95	-0.18	-0.26	-0.41	1.31	-1.26	-1.50	0.74	0.84
P18085	ARF4	1.38	2.41	-0.83	0.00	-1.19	0.54	0.21	0.10	-0.43	0.93	0.35	-0.34	-0.96	1.63
O43166	SIPA1L1	1.37	1.41	-0.96	-0.17	-1.50	0.93	0.43	1.14	0.16	0.72	-1.23	0.42	-1.37	1.44
P35247	SFTPD	1.37	3.05	-0.41	0.07	-1.03	1.26	-0.07	-0.44	-0.69	1.15	0.33	0.04	-0.89	0.68
Q15599	SLC9A3R2	1.37	1.59	-0.17	1.28	-1.17	1.54	0.35	-1.45	-0.60	1.27	-0.69	-0.30	-0.33	0.27
Q495W5	FUT11	1.37	1.82	-1.89	0.89	0.22	1.23	-0.64	0.12	-0.65	0.97	-0.67	-0.18	-0.01	0.97

Q96LR9	APOLD1	1.37	2.11	0.52	0.97	-0.77	1.27	-0.60	-1.12	-0.80	0.66	-0.40	-0.24	-0.64	1.16
P23284	PPIB	1.37	2.46	-0.97	-0.27	0.03	0.83	0.33	0.41	-0.30	0.93	-0.40	-1.45	-0.45	1.32
P07237	P4HB	1.37	2.06	0.05	0.10	-0.12	0.83	0.53	0.39	-1.22	0.90	-0.78	-1.36	-0.67	1.35
Q9UHQ7	WBP5	1.37	1.73	-0.02	-1.05	-0.38	1.72	-1.20	-0.96	1.19	0.55	0.30	-0.58	-0.36	0.80
P29558	RBMS1	1.36	3.38	-0.81	-0.05	-0.44	1.27	0.17	-0.53	-1.01	1.01	0.11	-0.02	-0.60	0.75
P49257	LMAN1	1.36	2.09	-1.56	-0.06	-1.12	0.79	0.43	-0.15	0.34	0.74	-0.49	-0.53	0.08	1.54
Q7Z7A4	PXK	1.36	2.21	-1.09	-0.47	-0.62	1.83	0.24	0.21	0.42	0.65	-0.49	-1.03	-0.52	0.49
Q9BZQ6	EDEM3	1.36	2.58	-0.35	-0.27	-0.61	0.68	0.84	-0.97	-0.82	0.90	-0.37	-0.54	0.04	1.48
Q6Q759	SPAG17	1.36	5.61	-0.29	-0.08	-0.36	0.70	-0.23	-0.50	-0.24	0.94	-0.60	-0.42	-0.35	1.41
Q9NP84	TNFRSF 12A	1.36	2.00	0.89	-0.21	-0.72	0.55	0.55	-0.90	-0.32	0.88	-0.68	-0.59	-1.08	1.62
Q8IW50	FAM219A	1.35	1.68	-0.13	0.34	-0.35	0.50	1.15	-0.36	-1.22	0.70	-0.82	-0.50	-1.16	1.84
A6NMB9	FIGNL2	1.35	2.28	-0.63	-0.75	-1.66	1.38	-0.28	-0.03	0.50	0.78	-0.02	-0.17	0.01	0.87
Q99538	LGMN	1.35	1.67	-1.44	0.04	-0.04	1.93	0.16	0.65	-0.98	-0.02	-0.86	-0.58	0.02	1.12
Q6S8J3	POTEE	1.34	4.32	-0.80	NA	NA	1.19	-0.39	-0.22	-0.09	0.95	-0.60	-0.46	-0.25	0.68
Q00013	MPP1	1.34	1.47	-0.08	0.43	-1.82	1.33	-0.32	0.75	-0.48	1.04	-0.38	-1.64	0.53	0.66
P27797	CALR	1.34	3.92	-0.10	0.25	-0.05	0.86	-0.56	-0.19	-0.71	0.93	-0.79	-0.67	-0.19	1.22
Q53GT1	KLHL22	1.34	2.53	-0.36	-0.04	-1.00	0.98	-1.37	0.38	-0.79	1.15	-0.08	-0.06	0.04	0.79
P07686	HEXB	1.34	1.65	0.63	-0.46	-0.33	1.25	-0.22	-0.16	-0.80	1.15	-1.77	-0.86	0.97	0.61
Q9Y227	ENTPD4	1.33	2.27	-0.01	0.72	0.16	1.01	-0.41	-0.21	-1.34	0.91	-0.04	-1.11	-0.42	1.18
Q8TDQ7	GNPDA2	1.33	1.55	-0.43	0.35	-1.08	0.97	0.78	-2.18	0.11	1.05	0.02	-0.60	-0.24	0.89
Q10471	GALNT2	1.33	1.80	0.21	0.62	-1.33	0.56	0.32	0.09	-0.98	1.00	0.10	-1.15	-0.88	1.44
Q8N2K0	ABHD12	1.33	1.64	0.28	1.21	0.00	0.81	-0.47	-0.64	-1.14	1.31	-1.37	-0.99	0.14	0.87

O95084	PRSS23	1.32	2.24	-0.94	-0.30	-0.65	1.33	1.03	-0.33	-0.23	0.50	-0.41	-1.00	-0.14	1.15
P21399	ACO1	1.32	1.61	-0.45	0.40	-0.80	1.44	0.49	0.43	-1.81	0.66	-0.81	0.42	-0.83	0.87
Q9HCH0	NCKAP5L	1.31	2.00	-1.08	0.06	0.81	0.98	-0.36	-0.68	0.52	0.71	-1.14	-0.78	-0.31	1.27
O75915	ARL6IP5	1.31	2.08	0.24	0.82	-0.88	1.16	-0.44	0.21	-1.26	1.26	-0.38	-0.72	-0.55	0.54
Q6PI78	TMEM65	1.31	1.76	-0.55	0.72	-0.58	1.11	-0.31	0.43	-0.71	0.85	-0.70	0.49	-1.74	1.00
Q9UNW1	MINPP1	1.31	2.70	-0.59	0.04	0.29	1.15	0.02	0.36	-0.43	0.83	-1.07	-0.94	-0.63	0.96
Q96DN5	TBC1D31	1.31	2.41	-1.59	-0.36	-0.19	1.35	-0.37	-0.16	-0.06	0.53	-0.64	0.35	0.06	1.06
P61619	SEC61A1	1.31	4.01	-0.78	-0.36	-0.82	0.68	-0.38	-0.05	-0.18	0.87	-0.30	0.01	-0.09	1.39
Q14161	GIT2	1.31	3.10	0.00	0.59	-0.55	1.11	-0.91	-0.43	-0.08	1.18	-0.45	-0.52	-0.58	0.64
P11766	ADH5	1.30	3.18	-0.61	-0.57	-1.09	1.47	-0.14	-0.09	-0.12	0.94	-0.41	0.17	-0.07	0.52
Q86XR7	TICAM2	1.30	2.78	-0.46	-0.44	-1.15	1.03	-0.55	-0.08	0.17	0.63	0.41	0.09	-0.59	1.37
O15259	NPHP1	1.30	2.31	-0.52	-0.04	-0.53	1.34	0.30	-0.15	-1.66	0.99	-0.47	0.13	-0.19	0.52
P52630	STAT2	1.30	2.73	-0.06	0.35	-0.67	1.35	-0.93	0.32	-0.18	1.13	-0.59	-0.75	-0.40	0.43
O43520	ATP8B1	1.29	1.56	-0.31	-0.45	-0.84	0.18	0.58	-0.77	-1.29	1.49	0.78	0.33	-1.25	1.12
Q96BZ9	TBC1D20	1.29	2.60	-0.96	0.36	0.49	0.83	-0.53	-0.21	-0.22	0.95	-1.01	-0.73	-0.07	1.11
P51826	AFF3	1.29	1.42	0.44	1.23	-1.85	0.87	-0.22	-0.72	-0.90	1.55	-0.19	-0.51	-0.18	0.47
Q92747	ARPC1A	1.29	3.68	-0.26	0.41	-0.32	0.82	-0.23	-0.20	-0.86	0.85	-0.57	-0.18	-0.69	1.22
Q9UHQ9	CYB5R1	1.28	2.03	0.66	0.42	-0.96	1.17	0.00	0.14	-0.87	0.98	-0.30	-1.22	-0.74	0.74
O00470	MEIS1	1.28	2.32	-1.18	-0.83	-0.86	0.44	0.30	-0.74	-0.71	1.23	0.53	-0.51	-0.37	0.72
Q01484	ANK2	1.28	1.33	-1.18	-0.64	-0.27	2.38	0.74	0.08	0.12	0.09	-1.22	-1.13	-0.38	0.08
P11021	HSPA5	1.28	3.85	-0.48	0.24	-0.23	0.78	-0.08	-0.66	-0.14	0.72	-0.55	-0.73	-0.25	1.38
Q9BZF9	UACA	1.28	1.60	0.00	1.10	-0.83	0.21	-0.24	-0.97	-1.32	1.59	-0.49	-0.52	0.39	1.08

P14136	GFAP	1.28	1.48	-0.09	-1.38	-0.41	1.03	-0.17	-0.63	-0.37	1.50	0.33	-1.72	0.88	0.12
Q15034	HERC3	1.28	2.08	-0.65	NA	NA	0.65	0.53	0.13	-1.15	0.79	-0.10	-0.75	-0.69	1.25
Q9HD67	MYO10	1.28	1.40	-0.52	0.10	0.36	0.96	0.59	-1.86	-1.64	1.16	-0.54	0.24	0.40	0.76
Q9NQG1	MANBAL	1.28	1.82	-0.35	-0.04	-1.95	0.97	0.40	0.51	-0.19	0.82	0.00	-0.55	-0.72	1.09
Q96S97	MYADM	1.28	2.12	0.08	0.35	-1.80	1.12	-0.08	-0.07	-0.07	0.84	-0.69	-0.03	-0.56	0.91
O00124	UBXN8	1.28	1.64	-0.99	-0.70	0.35	0.81	0.62	0.00	0.37	1.29	0.13	-1.02	-1.64	0.77
Q17RG1	KCTD19	1.28	3.09	0.47	-0.26	-0.50	1.05	-0.71	-0.77	-0.82	1.00	0.14	0.04	-0.45	0.82
Q8NCH0	CHST14	1.27	1.84	-1.76	0.18	-0.32	0.73	0.33	0.71	-0.55	0.98	-0.41	-0.82	-0.24	1.16
Q14999	CUL7	1.27	1.54	-0.60	0.76	-1.55	1.02	-1.18	0.58	0.51	1.11	-0.75	-0.73	0.11	0.73
Q9NSY0	NRBP2	1.27	2.70	0.03	0.49	-0.87	0.78	-0.82	-0.31	-0.72	1.12	0.35	-0.66	-0.33	0.96
Q9UKG9	CROT	1.27	1.98	-0.25	0.32	-0.46	1.74	0.47	-0.39	-0.29	1.12	-1.32	-0.38	-0.55	0.00
Q9NZJ4	SACS	1.27	1.54	-1.36	0.71	-0.01	0.31	-0.49	-0.89	0.57	0.58	-0.61	-0.90	0.12	1.97
Q6PKC3	TXNDC11	1.27	1.39	0.70	0.38	-1.97	0.77	-0.84	-0.38	0.66	1.17	0.31	-0.94	-0.77	0.91
P54284	CACNB3	1.27	3.02	-0.29	NA	NA	1.14	-0.90	-0.47	0.08	1.23	-0.36	-0.26	-0.46	0.30
Q9BZL4	PPP1R12C	1.27	2.35	-0.03	0.91	-1.05	1.24	-0.22	-0.45	-0.71	0.93	-0.11	-0.43	-0.75	0.68
ENST00000421009_SW620_Mis:K45M	KLHL2	1.26	1.87	-1.11	-0.35	-0.32	0.80	0.54	-1.04	-0.84	0.77	0.26	-0.75	0.76	1.27
P18206	VCL	1.26	2.84	-0.51	0.38	-0.97	1.29	-0.68	-0.60	-0.53	0.88	-0.30	-0.10	0.33	0.62
Q2M1P5	KIF7	1.26	1.42	-0.53	1.10	-1.06	1.00	1.01	-0.94	-0.24	1.17	0.04	-1.15	-1.06	0.66
B0YJ81	HACD1	1.26	1.34	-0.41	0.36	-2.03	0.86	-0.06	0.00	0.19	0.76	-0.69	-1.49	0.88	1.08
O14863	SLC30A4	1.26	1.82	-1.27	-0.15	NA	0.72	-1.01	0.37	-0.31	0.75	NA	-1.50	-0.25	0.53
ENST00000539317_CAPAN-1_Nons:174	SMAP2	1.26	1.46	-1.18	-0.10	0.51	1.47	0.73	-0.33	0.40	0.64	-1.76	-0.90	-0.20	0.72

Q5T0D9	TPRG1L	1.26	2.47	0.43	-0.08	-0.08	1.06	-0.94	-0.86	0.44	1.21	-0.66	-0.43	-0.70	0.54
Q8N5I4	DHRSX	1.25	2.42	-0.09	-0.64	0.09	1.40	-1.11	0.28	-0.51	0.42	-0.99	-0.13	0.14	0.95
Q9UPY6	WASF3	1.25	1.99	-0.43	-0.19	0.09	1.06	-1.00	-0.54	0.01	1.16	1.03	-1.04	-0.75	0.59
P62745	RHOB	1.25	1.47	-0.18	0.63	0.01	0.84	-0.27	-0.35	-2.12	1.12	-0.35	0.75	-0.92	0.84
Q8IZ81	ELMOD2	1.24	3.07	-0.06	0.41	-0.49	0.84	0.06	-0.49	-0.60	0.68	-0.06	-0.73	-0.84	1.28
P27361	MAPK3	1.24	1.83	0.89	-0.35	-0.93	1.42	-0.93	-0.11	-0.62	1.48	-0.37	-0.27	-0.09	-0.11
O00461	GOLIM4	1.24	1.97	-0.35	0.61	-0.19	0.44	-0.16	-0.11	-1.62	1.13	0.19	-0.33	-0.81	1.21
P55735	SEC13	1.23	6.86	-0.43	-0.34	-0.49	0.77	-0.11	-0.22	-0.19	0.84	-0.31	-0.36	-0.32	1.17
Q5SVQ8	ZBTB41	1.23	1.67	-0.76	0.09	0.95	0.41	-1.15	0.23	-0.59	0.68	-0.56	-1.03	0.04	1.68
O95405	ZFYVE9	1.23	1.52	-1.57	NA	NA	0.98	-0.28	0.44	-0.19	1.07	0.29	-1.27	-0.01	0.54
Q00341	HDLBP	1.23	3.64	-0.32	-0.30	-0.64	0.67	0.09	-0.36	-0.73	0.83	-0.45	-0.39	0.33	1.27
O60784	TOM1	1.23	2.95	0.01	0.17	-0.48	1.11	-0.37	0.34	-0.20	1.02	-0.46	-1.07	-0.70	0.63
ENST00000211998_NCI-H2030_Mis:A643V	VCL	1.23	2.78	-0.54	0.48	-0.88	1.18	-0.68	-0.45	-0.58	0.85	-0.37	-0.12	0.39	0.72
P48651	PTDSS1	1.22	1.82	-0.40	0.01	0.21	1.73	-0.27	-1.02	-1.14	0.58	-0.12	0.74	-0.76	0.44
O95782	AP2A1	1.21	2.41	0.15	0.62	-0.80	1.16	-0.29	-0.21	-1.21	0.91	-0.47	-0.42	-0.08	0.65
Q96M83	CCDC7	1.21	2.04	-1.34	-0.46	-0.63	1.12	0.33	-0.24	0.19	0.60	-0.39	-0.94	0.57	0.93
Q14642	INPP5A	1.21	2.51	-0.62	0.85	-0.52	1.06	-0.20	-0.12	-0.85	0.80	-0.10	-0.85	-0.30	0.85
A1A4Y4	IRGM	1.20	1.67	-0.18	0.94	-1.09	1.39	-0.78	-0.54	-1.08	0.62	0.66	-0.49	-0.15	0.69
Q15075	EEA1	1.20	2.69	-0.51	-0.01	-0.13	1.17	0.08	-0.16	-1.42	0.93	-0.51	-0.03	-0.04	0.61
O15040	TECPR2	1.20	1.61	-1.16	0.79	-0.88	0.88	0.28	0.37	-0.68	1.12	-0.58	-1.24	0.35	0.70
O15260	SURF4	1.20	3.01	-0.16	0.26	-0.87	0.95	-0.32	-1.02	-0.28	0.97	0.26	-0.39	-0.18	0.78
Q9BTV4	TMEM43	1.20	3.40	-0.23	0.13	-0.72	1.18	0.41	-0.53	-0.23	0.79	-0.55	-0.55	-0.44	0.73

P27816	MAP4	1.20	2.29	-0.13	0.42	-0.89	0.60	-0.04	-0.47	-0.10	1.06	-0.34	-1.35	0.22	1.04
Q9HB40	SCPEP1	1.19	1.53	-1.61	-0.60	0.14	1.25	1.15	0.28	-0.48	0.79	-0.32	-0.84	-0.40	0.64
P35670	ATP7B	1.19	2.43	0.28	0.41	-0.59	1.09	-0.89	-0.11	-0.45	0.61	0.11	-0.34	-1.11	0.99
O15118	NPC1	1.19	1.72	-1.09	-0.03	-0.25	1.72	1.07	-0.45	-0.25	0.71	-0.88	-0.60	-0.21	0.26
P52824	DGKQ	1.19	1.31	0.78	1.32	-1.17	1.09	-0.11	-1.29	-0.72	0.76	-0.98	0.02	-0.48	0.85
O75962	TRIO	1.19	2.94	-0.03	0.66	-0.77	0.70	-0.34	-0.16	-0.62	1.08	-0.55	-0.25	-0.62	0.91
Q9NPR9	GPR108	1.19	1.97	0.38	0.78	-1.06	0.67	-0.61	-0.49	-0.17	0.86	-0.19	-1.19	-0.20	1.13
Q9BS26	ERP44	1.19	1.68	0.86	-0.44	0.27	1.23	-1.02	-1.48	-0.76	0.85	-0.06	-0.02	-0.03	0.60
O75170	PPP6R2	1.19	3.66	0.04	0.19	-0.38	0.97	-0.90	-0.33	-0.62	0.97	-0.46	-0.22	0.03	0.74
P30101	PDIA3	1.19	1.68	-0.51	0.07	0.45	0.49	0.45	0.00	-1.49	0.58	0.00	-0.87	-0.77	1.60
Q8N8Z6	DCBLD1	1.19	2.67	-0.75	-0.33	-0.39	0.79	0.52	0.24	-0.87	0.65	-0.17	-0.21	-0.71	1.23
Q8N6G5	CSGALNACT2	1.19	2.88	-0.66	0.20	0.03	0.96	-0.83	0.47	-0.39	0.65	-0.57	-0.60	-0.31	1.05
P19367	HK1	1.18	1.32	-2.10	0.79	-0.33	0.71	0.63	-0.01	-0.82	1.05	-0.46	0.29	-0.64	0.90
Q96LZ7	RMDN2	1.18	1.71	-0.32	0.72	-0.37	1.11	-0.82	0.23	-0.46	1.11	0.61	-1.32	-0.85	0.47
Q7Z3D4	LYSMD3	1.18	2.32	0.15	0.83	-0.18	0.64	-0.71	-0.49	-0.89	0.97	-0.60	-0.57	-0.03	1.09
Q8TEQ0	SNX29	1.18	3.12	0.03	-0.54	0.20	1.31	0.11	-0.27	-0.84	0.86	-0.64	-0.46	-0.23	0.48
O43741	PRKAB2	1.18	1.62	-0.20	0.01	-1.21	0.93	-0.39	1.27	-0.06	0.91	-0.94	-0.94	-0.64	0.65
Q8NB49	ATP11C	1.18	1.43	0.05	-0.21	0.79	1.29	-0.09	-1.85	-0.56	0.74	0.28	0.13	-1.19	0.61
Q7L099	RUFY3	1.18	2.24	-0.42	0.94	-0.58	1.21	-0.87	-0.41	0.06	0.96	-0.27	-0.71	-0.39	0.48
Q8NFQ6	BPIFC	1.17	1.83	0.12	-0.63	-0.47	1.00	-0.20	-0.72	-0.22	1.23	0.42	-1.50	0.56	0.40
Q9Y4I1	MYO5A	1.17	1.53	-1.29	0.55	-0.49	0.45	0.28	0.92	-0.43	1.31	-1.12	-0.41	-0.65	0.87
P61764	STXBP1	1.17	2.11	-0.58	0.56	0.24	0.92	-0.47	-0.82	0.33	0.97	-1.02	-0.86	0.00	0.74

Q16394	EXT1	1.17	1.76	-0.84	1.09	-1.43	0.99	-0.18	-0.04	-0.38	0.71	-0.10	-0.21	-0.64	0.89
Q9C0E8	LNP	1.16	2.89	0.04	0.34	-0.70	0.73	-0.89	0.19	-0.69	1.09	-0.42	-0.12	-0.37	0.80
Q8IWE5	PLEKHM2	1.16	3.62	-0.67	-0.17	-0.79	1.01	-0.33	0.14	-0.01	0.94	-0.47	-0.47	0.14	0.68
P33527	ABCC1	1.16	1.57	0.50	0.36	-0.49	1.50	0.59	-0.52	-1.11	1.16	-0.38	-0.53	-1.02	-0.05
Q13029	PRDM2	1.16	3.27	-0.29	-0.26	-0.64	0.53	0.17	-0.17	-0.76	0.82	-0.49	-0.44	0.26	1.26
Q9Y259	CHKB	1.16	1.86	0.29	0.40	-1.17	0.87	-0.19	-0.50	-1.17	1.06	0.41	0.11	-0.80	0.68
Q8WU79	SMAP2	1.16	1.46	-0.94	-0.20	0.64	1.37	0.66	-0.33	0.23	0.49	-1.68	-0.79	-0.08	0.78
O60763	USO1	1.16	2.90	-0.49	0.47	-0.20	0.59	-0.22	-0.15	-1.02	0.81	-0.13	-0.66	-0.20	1.20
Q07960	ARHGAP1	1.15	2.70	0.42	-0.24	-0.51	0.94	-0.71	-0.69	-0.86	0.98	0.16	0.23	-0.39	0.67
Q0IIM8	TBC1D8B	1.15	1.37	0.22	0.15	-0.90	0.65	-0.36	0.37	0.71	0.73	0.16	-1.20	-1.74	1.21
Q9UBV2	SEL1L	1.15	3.13	-0.05	0.16	-0.22	0.82	-0.07	0.25	-0.55	0.74	-0.45	-0.82	-0.82	1.02
Q8NEZ2	VPS37A	1.15	3.04	0.08	0.34	-0.58	0.62	-0.58	-0.10	-0.16	0.83	-0.29	-0.98	-0.31	1.14
Q8NHP8	PLBD2	1.14	2.84	0.12	0.44	-0.21	0.70	-0.19	-0.58	-0.67	0.79	-0.40	-0.99	-0.09	1.08
Q9UI14	RABAC1	1.14	2.95	-0.68	0.05	-0.81	0.85	-0.37	-0.19	-0.60	0.84	0.49	0.06	-0.51	0.88
P02656	APOC3	1.14	2.69	-0.66	0.36	-0.25	0.97	-0.47	0.17	0.28	0.78	-0.54	-0.98	-0.47	0.82
P63261	ACTG1	1.14	1.35	-0.43	0.09	-0.26	0.52	-0.60	0.77	0.33	0.62	-1.53	-1.40	0.45	1.43
O60308	CEP104	1.14	2.46	-0.46	NA	NA	1.24	-0.75	-0.79	-0.38	0.82	-0.26	-0.07	0.31	0.34
Q9BXC9	BBS2	1.14	3.51	-0.30	0.19	-0.50	0.95	-0.37	0.06	0.13	0.94	-0.84	-0.49	-0.45	0.67
Q96IG2	FBXL20	1.14	1.99	-0.41	0.63	-0.36	1.06	-1.36	-0.17	-0.23	0.58	0.03	-0.92	0.23	0.93
Q9NZV5	SEPN1	1.14	2.18	-1.50	-0.06	-0.21	1.30	-0.50	-0.20	-0.17	0.78	-0.40	0.31	0.10	0.45
Q9UDT6	CLIP2	1.14	1.33	-0.14	-0.29	0.36	0.88	-1.16	-1.72	-0.74	1.15	0.56	0.83	-0.26	0.52

P60468	SEC61B	1.14	3.94	-0.90	-0.22	0.03	0.65	-0.36	-0.46	-0.26	0.70	-0.13	-0.13	-0.13	1.21
P48509	CD151	1.13	2.26	0.54	0.36	-0.41	0.52	0.00	-0.40	-0.88	1.13	-0.13	-0.87	-0.75	0.91
Q96CW1	AP2M1	1.13	2.69	0.00	0.41	-0.66	0.99	-0.38	-0.29	-1.06	0.82	-0.41	-0.44	0.27	0.74
Q9Y5U9	IER3IP1	1.13	2.33	-0.68	0.37	-0.38	0.57	0.38	0.19	-0.38	0.77	-1.06	-0.63	-0.37	1.21
P57723	PCBP4	1.13	1.35	-1.09	-0.91	0.86	1.05	-1.07	0.33	-0.79	0.97	-0.56	-0.33	1.00	0.52
Q13459	MYO9B	1.13	3.69	-0.22	-0.13	-0.47	0.58	-0.55	-0.83	-0.10	0.93	-0.29	-0.22	0.27	1.04
Q562R1	ACTBL2	1.13	4.49	-0.62	-0.17	-0.68	1.08	-0.33	-0.06	0.06	0.74	-0.23	-0.37	-0.14	0.73
Q9UHY8	FEZ2	1.13	1.60	-0.49	-0.35	-1.05	0.18	0.37	0.48	-1.15	0.75	-0.84	-0.36	0.49	1.49
Q6UXH1	CRELD2	1.13	2.55	-0.44	-0.51	0.38	0.63	0.32	-0.04	-0.56	0.51	-0.50	-0.85	-0.35	1.40
Q16134	ETFDH	1.13	1.73	-1.11	-0.28	-0.42	1.08	1.00	-0.41	-0.67	1.13	-0.79	0.39	-0.24	0.33
P13489	RNH1	1.13	2.63	0.29	-0.23	-0.98	0.89	-0.71	-0.46	-0.29	1.29	-0.28	-0.04	0.16	0.35
Q8N4L2	TMEM55A	1.12	2.99	-0.83	0.08	-0.52	1.04	-0.59	0.45	-0.04	0.72	-0.63	-0.31	-0.24	0.74
Q9Y3B3	TMED7	1.12	2.06	0.12	0.64	-0.68	0.67	0.21	0.00	-0.57	0.78	-1.21	-0.38	-0.65	1.07
Q13492	PICALM	1.12	2.27	0.54	0.22	-0.60	0.71	-0.49	-0.62	-0.90	0.54	0.28	-0.58	-0.39	1.28
P52209	PGD	1.12	1.31	-1.16	-1.18	0.31	1.35	0.94	0.51	-0.97	0.79	-0.82	-0.43	0.28	0.38
Q9H3U5	MFSD1	1.12	1.36	0.52	0.09	-0.80	0.52	0.69	-0.45	-0.63	1.29	0.31	-0.40	-1.85	0.72
O15431	SLC31A1	1.12	4.04	0.07	-0.18	-0.47	0.88	-0.44	-0.58	-0.53	1.09	-0.02	-0.49	-0.02	0.49
Q9H1H9	KIF13A	1.12	1.50	0.58	0.71	-1.07	0.91	-0.29	0.06	0.06	1.31	-1.26	-0.84	-0.55	0.26
Q96CN4	EVI5L	1.12	1.35	0.57	0.34	-1.32	1.00	-1.58	-0.19	-0.76	0.85	-0.37	0.09	0.71	0.67
Q8N4U5	TCP11L2	1.12	1.96	0.53	NA	NA	0.28	0.00	-0.41	-0.89	1.24	-0.23	-0.49	-0.85	0.82
Q8WV41	SNX33	1.11	1.83	-0.09	0.66	-0.91	1.20	-0.34	0.32	-0.86	0.81	0.19	-0.34	-1.14	0.50
Q53GL7	PARP10	1.11	1.62	0.28	0.74	-0.79	1.48	-0.09	-0.26	-1.08	1.11	-0.60	-0.01	-0.69	-0.08

Q9BXX3	ANKRD30A	1.11	3.06	-0.55	-0.35	-0.92	0.63	-0.21	-0.13	-0.24	0.63	-0.22	-0.62	0.40	1.15
Q5EBL4	RILPL1	1.11	1.62	-0.87	-0.11	-1.64	0.66	-0.37	0.10	-0.35	1.09	-0.40	0.55	0.58	0.75
P43307	SSR1	1.11	3.06	-0.62	-0.13	-0.71	0.89	-0.02	0.40	-0.04	0.57	-0.70	-0.52	-0.16	1.04
Q9NRV9	HEBP1	1.11	1.59	0.21	-0.76	-0.24	1.49	0.34	-1.36	-0.10	1.06	-0.03	-0.86	0.30	-0.05
Q13217	DNAJC3	1.11	1.38	-0.26	1.11	0.22	0.81	-1.04	-0.96	-1.17	0.59	0.40	0.08	-0.88	1.10
Q9P2C4	TMEM181	1.11	4.55	-0.63	0.00	-0.37	0.90	-0.33	-0.43	-0.59	0.60	-0.05	-0.13	-0.06	0.96
P61009	SPCS3	1.11	2.27	-0.57	-0.48	-0.13	0.82	0.67	0.12	-0.90	0.66	0.07	-0.93	-0.35	1.02
Q5ZPR3	CD276	1.11	1.39	-0.39	1.43	-0.30	0.89	0.05	-0.37	-1.45	0.62	-0.61	0.01	-0.87	0.99
Q5VU43	PDE4DIP	1.10	2.23	-0.48	-0.73	-1.09	0.72	-0.08	-0.46	-0.15	0.90	0.66	0.31	-0.47	0.86
Q9UNL2	SSR3	1.10	3.97	-0.37	-0.22	-0.53	0.79	-0.51	-0.03	0.25	0.63	-0.46	-0.55	-0.06	1.07
P42224	STAT1	1.10	1.47	0.30	-0.27	-0.55	2.12	-0.91	-0.04	0.60	0.44	-0.74	-0.52	-0.36	-0.08
Q96AB6	NTAN1	1.10	2.44	0.05	0.39	-0.54	0.80	-0.25	-0.07	-0.24	1.15	-0.89	0.08	-1.01	0.53
O94985	CLSTN1	1.10	2.80	-0.42	-0.51	-0.95	0.82	0.24	-0.55	0.28	0.64	0.16	-0.46	-0.26	1.01
Q13425	SNTB2	1.10	2.08	-0.30	-0.15	-0.71	1.37	-0.05	0.76	-0.62	0.80	-0.81	-0.60	0.01	0.30
Q14106	TOB2	1.09	1.83	-0.13	0.90	-0.18	1.01	-1.26	-1.01	-0.40	0.56	-0.22	-0.09	-0.07	0.89
P49137	MAPKAPK2	1.09	2.48	-0.36	0.48	-0.24	0.84	-0.28	-0.34	-0.54	0.96	-1.22	-0.14	0.18	0.66
Q8IWB1	ITPRIP	1.09	1.48	-1.73	-0.40	0.13	1.35	-0.55	0.19	0.45	0.13	-0.62	0.35	-0.29	0.97
Q01459	CTBS	1.09	1.99	-0.88	0.15	-1.00	0.99	0.00	0.54	-0.62	0.95	-0.09	-0.89	0.12	0.44
Q8N8S7	ENAH	1.09	1.86	-0.98	-0.39	-1.12	1.27	0.56	0.24	-0.46	0.33	0.22	-0.48	-0.03	0.85
Q8IZ52	CHPF	1.09	2.22	-0.28	0.16	0.06	0.70	-0.64	-0.58	-0.73	0.33	0.25	0.18	-0.89	1.42
Q6ZVM7	TOM1L2	1.08	1.96	0.89	-0.25	-0.86	0.97	-0.56	-0.19	-0.70	1.08	-0.40	-0.65	0.29	0.38

O15511	ARPC5	1.08	3.68	0.02	0.25	-0.55	0.76	-0.35	-0.02	-0.21	0.79	-0.37	-0.41	-0.80	0.89
Q7KYR7	BTN2A1	1.08	1.35	-0.40	-0.26	-0.89	0.82	-0.10	1.23	0.38	0.68	-0.98	-1.39	0.00	0.93
Q14554	PDIA5	1.08	2.39	-0.62	-0.47	-0.74	0.78	-0.94	0.00	0.10	0.35	-0.03	0.21	0.07	1.30
Q9NXU5	ARL15	1.08	1.90	-0.94	-0.13	0.08	0.73	0.24	0.68	-0.16	1.04	-0.39	-0.59	-1.20	0.65
O95399	UTS2	1.08	3.32	-0.18	0.36	-0.54	0.75	0.05	-0.83	-0.23	0.77	-0.15	-0.34	-0.56	0.91
Q9H1X3	DNAJC25	1.08	3.25	-0.13	-0.01	-1.07	0.92	-0.35	-0.53	0.02	0.75	0.05	-0.48	-0.21	0.66
ENST00000644474_NCI-H23_Mis:S1380T		1.08	3.03	-0.60	-0.05	-0.63	0.81	0.03	-0.39	0.08	0.84	-0.69	-0.45	0.43	0.82
P23677	ITPKA	1.07	1.33	-0.96	NA	NA	0.89	0.72	0.18	-0.34	1.50	-0.89	-0.61	-0.37	-0.14
P61020	RAB5B	1.07	1.60	0.27	0.51	-0.42	0.86	-1.55	0.03	0.13	0.91	0.17	-1.10	-0.44	0.65
P27449	ATP6V0C	1.07	2.39	0.52	0.36	-0.09	0.85	-0.67	-0.29	-0.12	0.89	-0.64	-0.90	-0.57	0.67
P32321	DCTD	1.07	2.03	-0.35	-0.03	-0.49	0.99	-0.21	-0.19	-1.12	1.06	0.78	-0.73	-0.06	0.36
Q9BW62	KATNAL1	1.07	1.38	-0.13	0.80	-1.52	0.50	-0.41	0.37	0.47	0.81	-1.18	-0.44	-0.37	1.10
Q9P2B4	CTTNBP2NL	1.07	1.65	-0.49	0.61	-0.88	0.81	-0.84	0.01	0.77	0.83	-0.17	-0.24	-1.19	0.76
O43493	TGOLN2	1.07	1.50	0.81	-0.56	-0.16	0.97	-0.44	0.45	0.11	0.67	-1.57	-0.92	-0.13	0.77
P16260	SLC25A16	1.07	2.05	-0.65	0.03	-0.23	1.29	-0.22	0.76	-0.19	0.50	-1.08	-0.21	-0.62	0.62
Q92859	NEO1	1.07	1.95	-0.77	-0.17	-0.05	1.28	-0.63	0.03	0.71	0.73	-0.20	-0.75	-0.93	0.27
P33947	KDELR2	1.07	1.65	0.66	-1.23	-0.89	0.68	-0.04	-0.25	0.01	0.88	0.54	-0.21	-1.00	0.85
Q01518	CAP1	1.07	2.00	-0.61	0.24	-1.20	0.62	-0.92	0.17	0.47	0.75	-0.26	-0.03	-0.25	1.03
Q68CP4	HGSNAT	1.07	2.54	0.17	-0.02	-0.47	0.69	-0.73	-0.41	-1.05	0.82	0.28	-0.63	0.05	0.75
P49184	DNASE1L1	1.06	1.83	-0.71	-0.80	0.08	0.89	-0.03	0.65	-1.36	0.66	-0.47	0.14	-0.16	0.75
Q9Y4G8	RAPGEF2	1.06	1.64	-0.79	0.31	-1.06	0.75	0.91	0.39	-0.52	0.78	-0.36	-0.70	-0.74	0.80

P15586	GNS	1.06	1.58	0.80	0.09	-0.95	0.58	0.18	0.04	-0.28	1.15	-0.66	-1.42	-0.18	0.65
P50583	NUDT2	1.06	2.40	-0.04	0.07	-0.95	0.47	-0.11	0.25	-0.62	0.73	-0.52	0.24	-0.71	1.19
ENST00000512285_NCI-H2030_Mis:A152S	GALNT7	1.06	1.52	-0.48	-0.44	-1.41	0.46	0.57	-0.18	NA	0.98	NA	NA	-0.38	0.57
O75886	STAM2	1.06	1.95	-0.16	0.03	-0.23	0.58	-0.41	0.78	0.17	0.94	-1.09	-0.70	-0.77	0.86
P42226	STAT6	1.06	1.58	0.66	0.25	-1.46	1.19	-0.90	-0.25	-0.24	0.90	0.20	-0.09	-0.55	0.29
P14625	HSP90B1	1.06	3.63	-0.53	-0.19	-0.08	0.85	0.03	-0.30	-0.19	0.36	0.00	-0.44	-0.68	1.17
P19634	SLC9A1	1.06	2.70	0.02	-0.91	-0.58	0.98	-0.49	-0.36	0.08	0.57	-0.20	0.31	-0.80	0.65
Q9BQS8	FYCO1	1.06	2.15	-0.02	-0.14	-1.21	1.18	0.15	0.20	-0.13	1.12	-0.38	-0.37	-0.48	0.07
Q9UGR2	ZC3H7B	1.06	3.93	-0.68	-0.08	-0.39	0.95	-0.27	0.24	-0.29	0.96	-0.45	-0.16	-0.29	0.47
Q8N271	PROM2	1.05	2.91	0.08	0.25	-0.89	0.62	-0.35	0.01	-0.66	1.00	-0.13	-0.07	-0.61	0.75
Q8NCC3	PLA2G15	1.05	1.36	-0.63	0.52	0.91	0.54	-0.53	-0.05	-0.64	1.01	-1.03	-1.17	0.60	0.94
P16298	PPP3CB	1.05	2.40	-0.18	0.06	-0.28	0.53	-0.93	-0.65	0.48	0.93	-0.80	-0.20	0.14	0.91
P35611	ADD1	1.05	1.83	-0.58	0.82	0.02	0.88	0.29	-0.45	-0.91	0.69	-0.43	-0.04	-1.07	0.79
Q9BZV1	UBXN6	1.05	1.37	-0.11	0.86	-0.80	0.70	-0.78	-0.67	1.04	0.95	-0.65	-1.09	-0.17	0.70
Q9BVK6	TMED9	1.04	3.07	-0.62	0.11	-0.50	0.44	-0.28	-0.12	-0.42	0.63	0.20	-0.13	-0.59	1.29
O43432	EIF4G3	1.04	2.84	-0.62	-0.33	-0.43	0.90	-0.31	0.22	0.44	0.79	-0.50	-0.78	-0.03	0.66
Q9Y2H6	FNDC3A	1.04	2.27	-0.60	0.85	-0.10	0.42	-0.48	-0.74	-0.24	0.84	-0.21	-0.30	-0.52	1.09
O14656	TOR1A	1.04	1.37	0.14	0.94	-0.67	0.83	0.04	-0.30	-0.76	0.84	-1.72	-0.23	0.22	0.66
P62070	RRAS2	1.04	3.08	-0.02	0.02	-0.51	0.63	-0.23	-0.65	-0.76	1.15	-0.26	-0.20	0.27	0.55
O60393	NOBOX	1.04	1.49	0.03	-0.36	-1.43	0.97	-0.85	NA	0.55	0.60	0.15	-0.70	0.37	0.68
Q9UBW8	COPS7A	1.03	1.97	-1.58	-0.31	-0.01	0.91	-0.26	-0.40	0.25	0.93	0.06	0.10	-0.18	0.49
Q01850	CDR2	1.03	2.06	-0.64	-0.37	-0.93	0.95	0.33	-0.29	-0.56	0.68	0.79	-0.14	-0.50	0.69

Q96AG3	SLC25A46	1.03	1.55	0.36	-0.13	0.88	1.19	-0.24	-0.75	-1.02	1.06	-0.84	-0.32	-0.26	0.07
P22307	SCP2	1.03	1.80	-0.40	0.45	-0.12	1.73	0.19	-0.10	-0.66	0.54	-0.37	-0.52	-0.79	0.04
Q96P50	ACAP3	1.03	3.13	0.05	NA	NA	0.91	-0.17	-0.65	-0.50	0.99	-0.28	-0.25	-0.35	0.26
Q6PJW8	CNST	1.02	2.04	0.02	-0.38	-0.53	0.38	-0.91	-0.88	0.33	1.25	0.25	0.24	-0.45	0.67
Q8TEB9	RHBDD1	1.02	1.58	0.76	0.45	-0.06	0.85	-0.56	-0.48	-0.31	1.05	-1.46	-0.49	-0.16	0.40
Q04656	ATP7A	1.02	1.40	0.16	-0.32	0.29	1.19	0.87	-0.27	0.09	0.78	-1.14	-0.79	-1.21	0.34
O75379	VAMP4	1.02	1.67	0.67	-0.04	-1.25	0.81	-0.54	-0.48	-0.76	1.22	-0.40	-0.06	0.25	0.16
Q69YQ0	SPECC1L	1.02	2.72	-0.73	0.39	-0.66	0.82	-0.16	0.09	-0.40	0.68	-0.64	0.22	-0.41	0.80
Q8NBJ5	COLGALT1	1.02	1.59	-0.42	-0.94	-1.10	0.41	-0.37	-0.71	0.37	0.69	0.50	-0.21	0.58	1.21
O60476	MAN1A2	1.02	2.91	-0.13	-0.31	-0.61	0.53	-0.20	-0.26	0.39	0.84	0.16	-0.76	-0.58	0.93
O95674	CDS2	1.02	1.40	-0.12	1.06	0.19	1.45	-0.47	-0.69	-0.37	0.35	-1.37	-0.12	-0.39	0.50
Q9H0V1	TMEM168	1.02	1.61	-0.93	-1.26	-0.64	0.63	0.31	-0.08	0.78	0.66	0.05	-0.70	-0.29	0.83
Q9H3F6	KCTD10	1.02	3.42	-0.72	0.27	-0.34	0.80	-0.41	-0.20	-0.61	0.87	0.14	-0.17	-0.27	0.61
Q6PIY7	PAPD4	1.02	2.01	-0.25	-0.55	-0.83	0.51	-0.83	-0.66	-0.05	0.72	-0.10	0.33	0.65	1.06
Q9BXJ8	TMEM120A	1.02	1.92	-0.33	-0.99	-1.10	0.54	-0.37	-0.21	-0.85	0.56	0.15	0.40	0.23	0.92
P09871	C1S	1.01	1.88	-0.84	-0.35	-0.51	1.69	-0.27	0.52	-0.29	0.63	-0.11	-0.27	-0.17	-0.04
P61163	ACTR1A	1.01	2.61	-0.29	0.11	-0.61	0.59	-0.11	0.22	-0.09	0.89	-1.15	-0.32	-0.04	0.80
O95817	BAG3	1.01	1.38	-1.18	-0.47	-1.61	0.60	-0.01	-0.07	0.44	0.65	-0.16	0.40	0.38	1.04
Q99519	NEU1	1.01	1.59	0.16	-0.26	0.46	1.52	-0.65	0.36	-0.06	0.74	-0.43	-0.88	-0.98	0.01
Q96T83	SLC9A7	1.01	1.35	0.21	-0.18	-1.17	0.11	-0.02	-1.45	-0.49	1.22	0.39	0.55	-0.11	0.94

Q15363	TMED2	1.01	4.21	-0.42	0.23	-0.31	0.57	-0.31	-0.16	-0.43	0.61	-0.11	-0.31	-0.44	1.08
A4QPH2	PI4KAP2	1.01	2.75	-0.79	-0.03	-0.61	0.94	-0.27	0.21	-0.12	0.90	-0.65	-0.28	0.26	0.43
Q8NHS3	MFSD8	1.01	1.54	0.34	0.48	-1.31	0.73	-0.12	-0.50	-1.09	1.09	0.28	-0.61	0.06	0.38
Q96QD8	SLC38A2	1.01	1.30	-0.34	0.64	-0.51	0.74	-1.37	-0.33	-0.62	1.08	-0.47	-0.41	1.18	0.45
Q9BRR6	ADPGK	1.00	2.12	-0.14	-0.37	0.09	0.83	0.74	-0.68	-0.93	0.68	-0.57	0.07	-0.47	0.75
Q6WCQ1	MPRIP	1.00	1.44	0.01	1.21	-0.62	0.99	-0.01	0.08	-1.01	0.62	-0.23	-0.79	-0.89	0.66
O14974	PPP1R12A	1.00	3.46	-0.10	0.00	-0.42	0.71	-0.13	0.02	-0.21	0.72	0.05	-0.88	-0.58	0.83
Q8WUY8	NAT14	1.00	1.50	-1.39	0.91	-0.95	1.02	-0.53	0.10	0.01	0.48	-0.35	-0.33	-0.56	0.47
O75882	ATRN	1.00	2.59	-0.58	0.34	0.47	0.83	-0.40	-0.84	-0.27	0.57	-0.33	-0.27	-0.17	0.92
Q4KWH8	PLCH1	1.00	3.53	-0.37	-0.27	-0.40	0.74	0.07	-0.38	-0.13	0.43	0.19	-0.28	-0.69	1.08

Appendix table 2- CAF depleted proteins from basal state proteome

Accession	Gene	Log_2(CAF / Cancer)	-log_{10}(p value)	H747	LIM2099	SW620	Colorectal CAF	H1792	H2030	H23	Lung CAF	CAPAN1	DANG	MIAPACA2	PSC
O14493	CLDN4	-5.81	1.47	3.44	2.35	1.12	-4.59	2.57	-8.21	NA	-5.49	3.90	2.15	0.33	-4.47
Q9GZP8	IMUP	-5.45	4.22	2.79	2.29	-0.48	-5.01	1.47	1.22	-1.29	-3.18	1.96	1.42	1.31	-4.62
Q9NSC7	ST6GALNAC1	-4.85	2.59	2.83	1.77	0.59	NA	-0.67	-1.43	1.45	-3.87	3.21	-0.58	0.78	-4.07
P31947	SFN	-4.49	3.61	2.02	1.46	0.82	-3.51	0.37	2.02	1.18	-3.10	1.61	2.61	-2.01	-3.49
P55327	TPD52	-4.20	4.83	1.22	1.67	1.15	-2.97	1.23	2.78	0.50	-3.40	-0.07	1.13	-0.15	-3.08
P50238	CRIP1	-4.08	1.50	2.22	2.09	-1.96	-2.92	0.75	4.18	2.53	-2.97	NA	1.53	-4.14	-3.66
ENST00000450894_LIM2099_Mis:G1498S	ITGB4	-3.90	2.24	2.99	3.04	1.50	-2.83	0.21	-0.69	-2.46	-2.93	0.98	2.94	0.27	-3.03
O43291	SPINT2	-3.87	2.27	2.73	2.35	1.28	-2.94	-2.53	0.89	-0.61	-3.26	2.80	2.24	-0.44	-2.52
Q96BD0	SLCO4A1	-3.67	5.83	1.48	1.52	0.31	-2.87	1.02	0.12	0.27	-2.75	1.60	0.55	1.40	-2.65
Q9C0H9	SRCIN1	-3.64	2.75	1.86	0.65	1.48	-2.67	-0.74	-1.39	1.25	NA	1.71	0.20	0.94	-3.29
Q05639	EEF1A2	-3.43	2.34	-0.97	-2.31	0.82	-1.98	1.33	2.88	1.83	-2.74	1.23	1.28	1.64	-3.00
Q86XS8	RNF130	-3.35	1.61	3.48	NA	NA	-2.05	-0.28	-1.26	2.81	-2.09	2.47	1.24	-1.43	-2.89
P78310	CXADR	-3.30	1.41	1.59	2.19	0.55	-2.79	-3.75	2.95	3.06	-3.30	0.78	1.89	-1.84	-1.33
Q9BV40	VAMP8	-3.29	3.62	1.80	0.74	1.01	-2.63	1.26	0.04	-0.56	-1.72	1.62	1.88	-0.39	-3.05
P50053	KHK	-3.19	1.98	1.83	1.51	2.26	-1.77	-0.48	2.17	0.30	-3.27	-2.66	2.25	0.01	-2.15
Q14651	PLS1	-3.11	4.57	1.60	0.31	1.18	-2.50	0.34	1.01	0.34	-2.57	1.06	1.62	-0.47	-1.92
Q13887	KLF5	-3.10	1.98	0.08	0.62	0.70	NA	0.06	-0.10	-1.77	-1.37	1.65	0.71	NA	-4.34

ENST00000449880_LIM2099_Mis:G1551S	ITGB4	-3.08	1.48	3.11	2.84	1.66	-2.40	-0.23	-1.23	-3.32	-2.12	0.79	2.44	0.87	-2.42
Q9Y446	PKP3	-3.07	2.79	2.72	-0.46	1.33	-2.29	-0.57	-0.21	-0.40	-2.30	1.68	1.73	1.08	-2.32
Q7Z403	TMC6	-3.00	2.06	1.17	1.87	0.82	-2.19	-1.31	-0.40	-0.31	-2.44	1.95	3.23	-1.09	-2.38
Q9NP50	FAM60A	-2.98	3.12	0.32	0.15	1.23	-2.36	0.53	0.07	1.62	-3.86	0.90	1.32	1.06	-0.32
Q9Y624	F11R	-2.96	1.63	2.81	1.39	0.75	-1.24	-2.11	0.65	0.39	-3.04	2.84	1.91	-1.95	-2.39
P05783	KRT18	-2.90	2.51	1.84	0.97	1.52	-2.10	-0.82	-1.67	1.13	-2.56	2.15	0.43	0.97	-1.87
Q9Y342	PLLP	-2.89	1.68	0.83	1.69	1.25	-1.91	0.49	3.78	-1.17	-2.27	0.78	1.32	-2.47	-2.31
Q9BYG5	PARD6B	-2.87	2.68	1.72	0.86	0.36	-1.76	0.07	1.22	1.31	-2.21	2.59	-0.61	-1.08	-2.48
Q16625	OCLN	-2.83	2.33	2.46	-0.46	0.95	-2.12	-1.75	0.99	0.70	-2.03	1.81	-0.13	1.79	-2.21
Q6ZUM4	ARHGAP27	-2.83	3.17	1.56	1.45	-0.13	-2.02	-0.53	-0.15	0.87	-2.04	1.71	1.87	-0.28	-2.29
Q9BRX8	FAM213A	-2.81	2.91	0.77	1.57	-0.96	-2.14	1.32	1.68	-0.31	-2.55	0.74	1.89	-0.39	-1.62
Q14451	GRB7	-2.81	1.61	1.53	0.05	1.48	-1.99	-2.07	1.99	-0.70	-2.08	2.38	3.00	-1.36	-2.25
O00592	PODXL	-2.80	1.34	0.98	2.20	-1.26	-3.62	2.04	-2.17	-1.21	-2.43	0.77	1.50	3.46	-0.25
Q14116	IL18	-2.75	1.31	1.77	1.13	-2.35	-0.96	1.42	3.07	1.54	-2.79	2.25	0.10	-2.73	-2.45
ENST00000490882_DAN-G_Mis:D1768E	FLNB	-2.75	2.13	2.31	2.13	-1.41	-2.36	0.71	0.28	-0.07	-2.56	2.49	0.01	-0.08	-1.22
Q9P2M7	CGN	-2.75	1.49	2.73	-1.24	0.95	-2.00	-1.30	1.51	1.20	-1.98	3.39	0.93	-2.00	-2.20
O76041	NEBL	-2.72	1.32	4.45	1.40	0.56	-2.36	0.15	2.14	1.40	-2.17	-1.61	-2.10	-0.78	-1.78
P30047	GCHFR	-2.72	1.51	-0.14	1.94	3.07	-1.51	0.28	3.41	0.42	-2.42	-0.78	-0.64	-1.83	-2.31
A0AV96	RBM47	-2.70	2.69	1.50	1.58	0.95	-2.01	1.32	0.10	-1.55	-2.18	1.89	0.47	-0.20	-1.88
P29350	PTPN6	-2.69	1.48	1.58	1.53	1.68	-1.82	-2.08	1.83	1.89	-2.20	0.38	1.99	-2.76	-2.03
Q8IYS1	PM20D2	-2.68	3.22	1.60	-0.72	1.24	-2.18	-0.64	0.94	0.07	-1.67	0.64	1.45	1.46	-2.19
Q7Z628	NET1	-2.64	5.25	0.75	-0.09	1.28	-2.32	0.27	-0.20	0.41	-2.28	0.64	0.87	0.84	-1.71

Q9BST9	RTKN	-2.64	2.75	0.60	0.60	1.15	-1.99	-0.11	1.67	1.88	-1.92	-0.20	1.61	-1.29	-2.01
O00311	CDC7	-2.57	4.00	-0.33	-0.62	1.25	-1.73	0.98	0.69	1.41	-1.87	0.95	0.84	0.61	-2.19
Q9H6T0	ESRP2	-2.57	1.80	2.32	1.05	1.63	-1.66	0.90	0.83	-1.44	-2.24	0.95	1.71	-2.17	-1.87
O00762	UBE2C	-2.56	3.38	1.47	-0.87	0.26	-2.44	0.67	1.18	1.73	-1.63	0.10	0.28	0.95	-1.70
Q15418	RPS6KA1	-2.56	4.96	0.17	-0.28	0.88	-1.92	0.32	0.43	0.96	-2.21	1.08	1.33	0.88	-1.63
P02654	APOC1	-2.56	1.52	-1.39	-0.51	0.85	-1.71	4.11	1.61	-1.43	-1.78	0.80	0.64	1.09	-2.27
Q9BQI0	AIF1L	-2.55	1.52	1.03	-0.91	1.33	-2.12	-0.16	-1.82	0.45	-1.70	3.09	3.12	-0.37	-1.92
Q92817	EVPL	-2.54	1.57	2.43	1.85	0.66	-1.96	-1.08	0.28	-1.22	-1.87	1.92	2.52	-1.65	-1.89
O14975	SLC27A2	-2.53	1.56	2.18	1.82	1.84	-2.01	2.43	1.23	-1.62	-1.98	0.19	-0.47	-1.91	-1.71
Q86X29	LSR	-2.52	1.39	2.04	1.08	1.36	-1.85	-2.69	0.97	1.54	-2.02	2.46	1.05	-2.15	-1.80
Q7L266	ASRGL1	-2.49	2.60	-0.86	-0.71	0.72	-2.06	0.74	2.39	1.47	-2.30	-0.08	-0.02	0.53	-1.71
Q9BY89	KIAA1671	-2.48	3.93	1.41	-0.15	0.76	-1.64	1.00	-0.12	-0.25	-2.35	1.34	1.02	0.58	-1.58
Q8TEM1	NUP210	-2.46	1.30	1.63	-2.04	2.72	-1.77	2.20	1.74	0.48	-1.86	1.01	-2.68	0.48	-1.91
Q8N0X4	CLYBL	-2.46	2.32	-0.07	1.21	1.99	-1.88	-1.55	0.16	2.15	-1.60	1.12	0.30	1.02	-1.77
Q96BW5	PTER	-2.46	5.07	1.54	0.47	0.00	-1.89	0.38	0.30	0.81	-1.60	1.19	0.44	0.38	-2.03
O43609	SPRY1	-2.45	2.11	-0.32	-1.20	-0.05	-0.72	-0.02	1.94	1.15	-1.82	1.12	0.71	2.18	-2.97
P51649	ALDH5A1	-2.45	2.86	0.57	0.09	1.71	-1.47	1.36	0.46	0.34	-2.23	0.98	-1.37	1.36	-1.81
Q9BXN1	ASPN	-2.45	2.47	0.74	-0.11	-0.13	-0.62	0.16	-0.28	1.12	-1.20	1.36	1.44	1.21	-3.68
Q8N565	MREG	-2.43	3.32	0.39	0.34	0.20	-2.80	-0.60	1.52	1.56	-1.03	0.84	0.61	0.75	-1.60
Q96IR7	HPDL	-2.39	1.83	0.30	-2.32	1.92	-1.57	2.35	0.34	-0.11	-1.91	1.17	1.25	0.45	-1.89
P13284	IFI30	-2.38	2.29	0.47	-0.43	1.91	-0.68	1.63	-0.31	-0.44	-2.14	1.60	1.26	-0.35	-2.52
Q9BQL6	FERMT1	-2.38	3.08	0.27	1.55	1.08	-1.88	0.47	-0.38	-0.87	-1.84	0.88	1.70	0.66	-1.62
Q96HR9	REEP6	-2.37	1.76	1.92	1.09	0.26	-2.00	-2.48	-0.31	1.28	-1.70	2.01	0.23	1.33	-1.63

P14635	CCNB1	-2.36	2.15	1.08	-1.91	1.63	-2.49	0.35	0.43	1.61	-1.22	-0.11	0.65	1.58	-1.59
Q9ULE6	PALD1	-2.35	1.66	-1.55	-1.42	3.00	-1.66	1.44	0.43	0.57	-1.71	0.21	0.81	1.80	-1.93
O95858	TSPAN15	-2.34	4.17	1.71	0.35	0.94	-1.21	0.41	0.03	-0.01	-2.04	0.50	1.06	0.27	-2.01
Q99956	DUSP9	-2.34	5.33	0.77	0.30	0.38	-1.78	0.24	-0.19	1.15	-1.63	1.09	0.67	0.85	-1.85
Q9HBH0	RHOF	-2.31	3.10	0.41	1.20	-1.13	-1.90	-0.22	0.89	1.41	-1.99	0.59	-0.16	-0.28	-2.14
Q9UN36	NDRG2	-2.31	2.63	0.52	1.38	-0.91	-1.50	-0.87	1.17	0.68	-1.96	1.96	0.45	0.82	-1.75
Q9H773	DCTPP1	-2.31	3.28	0.75	-0.96	0.90	-2.43	0.04	0.37	1.00	-1.78	1.24	1.04	0.83	-0.99
P98171	ARHGAP4	-2.30	1.37	1.55	1.25	2.29	-1.82	1.09	-1.42	1.69	-1.63	-1.71	2.07	-1.64	-1.72
Q86VH2	KIF27	-2.29	2.12	1.21	-1.40	-0.13	-1.13	-0.30	1.17	1.10	-2.11	2.18	1.46	-0.15	-1.90
Q92485	SMPDL3B	-2.29	2.34	2.07	-0.30	0.55	-1.41	1.36	0.27	0.56	-1.80	0.64	1.52	-1.46	-1.92
Q13115	DUSP4	-2.27	2.15	1.50	2.00	0.14	-1.29	0.04	0.67	0.93	-2.30	0.14	1.76	-1.54	-1.34
Q05513	PRKCZ	-2.27	4.24	0.49	0.39	0.49	-1.20	-0.55	0.82	0.85	-1.69	1.13	0.28	1.01	-2.29
Q5VSG8	MANEAL	-2.25	2.64	-0.82	1.62	0.37	-1.37	-0.28	0.94	0.05	-1.80	0.82	-0.50	1.69	-2.29
Q6P4A8	PLBD1	-2.25	1.68	1.69	-0.23	0.99	-1.65	1.33	-1.38	-1.38	-1.46	1.91	-0.04	2.18	-1.94
ENST00000570896_NCI-H2030_Mis:F316Y	TNK1	-2.24	2.31	0.96	0.57	1.71	-0.51	-0.74	0.50	-0.71	-3.21	0.93	0.63	0.00	-1.73
Q969H4	CNKSR1	-2.23	1.49	2.33	1.18	-0.33	-1.69	-1.78	1.68	0.56	-1.64	1.59	1.63	-1.65	-1.61
P16885	PLCG2	-2.23	2.81	0.12	0.66	-1.32	-1.43	-0.18	0.84	0.79	-2.20	1.20	0.41	1.55	-1.70
A1L3X0	ELOVL7	-2.22	1.35	2.50	1.63	0.59	-1.41	-1.89	2.10	-0.71	-2.10	1.82	0.51	-1.55	-1.50
A0MZ66	KIAA1598	-2.22	2.67	0.78	0.10	1.24	-1.49	0.03	2.13	1.07	-2.20	0.56	-0.02	-0.88	-1.30
Q8IXU6	SLC35F2	-2.21	2.93	-0.22	-0.14	0.63	-2.57	0.42	1.23	1.34	-1.75	0.26	1.55	-0.09	-0.66
Q9Y6X4	FAM169A	-2.21	3.71	0.29	1.01	1.19	-1.63	-0.25	1.77	0.29	-1.41	0.36	0.09	0.23	-1.93
C9JI98	TMEM238	-2.21	2.46	2.01	0.52	-0.28	-1.71	0.33	0.72	-0.92	-1.53	1.92	0.90	-0.18	-1.71

P48436	SOX9	-2.20	2.33	1.41	-0.99	1.76	-1.73	0.18	-0.22	-0.01	-1.66	0.47	0.19	2.15	-1.56
P00973	OAS1	-2.20	1.33	2.30	-0.77	-0.27	-1.46	1.88	1.85	-2.22	-1.66	0.79	2.19	-0.81	-1.82
P11388	TOP2A	-2.19	2.92	0.20	-0.97	1.17	-2.15	0.04	1.57	1.24	-1.22	0.88	0.05	0.76	-1.57
Q9H8V3	ECT2	-2.19	3.30	1.04	-0.34	1.68	-2.03	-0.13	0.76	-0.30	-1.28	0.67	0.38	1.17	-1.62
O15392	BIRC5	-2.19	3.34	0.34	-0.45	1.18	-2.35	0.62	0.61	1.45	-1.22	0.49	-0.36	1.05	-1.35
P21439	ABCB4	-2.19	1.37	0.53	0.11	0.05	0.31	0.84	0.37	0.34	-0.05	0.65	1.08	0.95	-5.18
Q13572	ITPK1	-2.18	2.73	0.45	0.85	0.26	-1.62	1.62	0.45	-1.22	-1.51	0.70	1.72	0.08	-1.79
Q05084	ICA1	-2.18	1.45	2.43	-0.27	-0.33	-2.14	1.46	0.01	-1.04	-1.51	1.98	2.21	-1.55	-1.27
Q9BXS6	NUSAP1	-2.16	3.57	0.03	-0.26	0.83	-2.19	0.71	1.17	1.25	-1.23	0.77	-0.39	0.88	-1.38
Q9UN81	L1RE1	-2.15	1.81	2.28	0.28	1.86	-1.72	1.16	-0.97	-1.13	-1.96	0.56	1.30	-0.50	-1.16
Q14781	CBX2	-2.15	1.68	-2.37	0.56	1.40	-2.44	1.93	0.02	-0.02	-1.71	1.15	1.23	0.32	-0.89
Q99959	PKP2	-2.15	1.43	2.69	-0.49	1.63	-1.41	-0.56	0.11	-0.98	-2.20	0.26	2.85	-0.68	-1.22
Q8WXR4	MYO3B	-2.13	1.80	0.56	0.93	-0.17	0.32	0.36	0.19	0.99	-0.91	0.35	0.57	1.01	-4.19
Q86T82	USP37	-2.12	2.67	0.79	-0.71	0.09	-2.81	-0.26	0.82	1.49	-0.90	0.92	0.62	1.01	-1.07
Q8IYW5	RNF168	-2.12	2.40	1.47	0.23	1.12	-2.03	-0.43	-1.10	0.47	-1.00	1.84	0.22	0.58	-1.87
Q9Y2W6	TDRKH	-2.11	3.22	0.98	0.25	-0.31	-1.72	0.68	1.43	1.25	-1.46	0.69	-0.79	0.59	-1.58
Q9P2D1	CHD7	-2.11	3.37	0.14	0.06	1.47	-2.08	0.52	-0.31	0.38	-1.84	0.32	0.72	1.45	-0.84
Q9ULW0	TPX2	-2.11	4.01	0.95	-0.34	0.75	-2.12	0.36	0.68	1.15	-1.25	-0.27	0.76	0.71	-1.37
Q9NQ84	GPRC5C	-2.09	1.36	1.30	2.44	1.26	-0.70	0.91	-0.73	0.27	-2.19	2.18	-1.44	-1.48	-1.82
Q9P1Y5	CAMSAP3	-2.09	2.26	0.63	0.36	1.56	-0.96	-1.26	-0.36	0.52	-1.96	1.56	1.46	-0.02	-1.86
O15020	SPTBN2	-2.09	1.43	1.12	-0.09	2.20	-1.22	2.23	-1.58	-1.40	-1.76	1.69	0.86	-0.34	-1.71
Q8N6N7	ACBD7	-2.09	2.19	-0.62	1.01	1.93	-1.13	0.29	-0.73	-0.47	-1.37	1.60	0.20	0.59	-2.49
Q9H9P8	L2HGDH	-2.08	3.60	-0.14	-0.60	0.58	-1.49	1.14	0.49	0.61	-1.59	1.15	0.18	1.28	-1.60

Q96AZ6	ISG20	-2.08	1.63	0.23	-0.80	-1.44	-1.29	2.01	1.75	0.78	-2.48	-0.71	1.78	0.53	-1.10
Q8N4T8	CBR4	-2.08	4.15	0.62	0.04	0.63	-0.79	0.85	0.83	0.29	-1.51	0.84	0.70	-0.12	-2.37
P24855	DNASE1	-2.05	1.80	-0.37	-0.67	-0.85	-2.58	1.11	0.97	1.31	-0.78	0.13	0.88	0.85	NA
Q08050	FOXM1	-2.05	3.12	0.78	-0.25	0.91	-1.65	-0.22	0.03	1.72	-1.57	-0.14	1.27	0.76	-1.31
Q96GD4	AURKB	-2.03	3.02	0.39	-0.80	1.20	-2.05	0.05	0.69	1.55	-1.15	0.18	0.31	1.00	-1.38
O95832	CLDN1	-2.03	2.19	0.77	0.19	0.63	-1.92	-0.02	1.01	1.55	-1.66	-1.03	1.81	-0.81	-1.15
Q6ZRV2	FAM83H	-2.03	1.51	1.76	-0.01	-0.71	-0.96	-0.67	0.12	-0.10	-1.79	2.50	2.39	-0.72	-1.81
Q15004	KIAA0101	-2.02	3.20	0.30	-0.06	1.81	-2.10	0.71	0.67	0.67	-0.90	-0.28	0.00	0.71	-1.53
P13051	UNG	-2.01	3.74	0.70	-0.09	1.13	-1.66	0.34	-0.14	0.67	-1.25	1.34	-0.26	0.84	-1.62
Q9NVI1	FANCI	-2.01	3.00	0.46	-0.96	1.44	-2.03	0.77	0.85	0.59	-1.24	1.14	0.10	0.13	-1.25
P51648	ALDH3A2	-1.99	4.50	0.24	-0.10	0.31	-1.15	0.71	0.75	0.64	-2.15	0.59	0.20	1.15	-1.19
O43688	PPAP2C	-1.98	1.40	1.57	0.45	-2.94	-1.17	0.89	-0.02	1.67	-1.16	0.82	0.39	0.72	-2.43
Q14126	DSG2	-1.97	1.63	1.22	0.63	0.29	-2.42	0.77	0.01	-0.10	-2.57	0.66	2.02	-1.06	0.56
Q8NI35	INADL	-1.95	2.86	1.34	1.05	0.45	-1.26	-1.15	0.97	0.43	-1.35	0.91	0.31	0.09	-1.79
Q9UHR4	BAIAP2L1	-1.95	1.80	1.02	-1.58	-0.14	-1.28	-0.32	0.93	0.98	-1.77	2.17	1.42	-0.08	-1.34
Q96B01	RAD51AP1	-1.95	3.44	0.13	-0.44	1.34	-1.54	0.31	-0.12	1.26	-1.22	0.81	0.26	0.83	-1.62
Q8IY22	CMIP	-1.94	2.73	0.08	0.80	1.81	-1.50	-0.71	1.08	0.26	-1.80	-0.29	0.56	0.77	-1.07
Q8N257	HIST3H2BB	-1.94	3.23	0.35	-0.23	0.33	-1.32	0.07	0.02	0.59	-2.31	1.19	-0.70	1.01	-1.31
Q96D05	C10orf35	-1.93	2.28	0.36	0.71	1.57	-1.11	0.21	2.07	0.23	-1.36	-0.72	0.39	-0.49	-1.87
O14965	AURKA	-1.93	2.47	0.65	-0.83	0.13	-2.07	0.10	1.15	2.05	-0.91	0.23	0.23	0.63	-1.36
Q8IW92	GLB1L2	-1.93	1.37	1.82	-1.41	1.94	-1.23	0.92	-1.50	-0.13	-1.62	2.04	0.99	-0.35	-1.49
Q16777	HIST2H2AC	-1.92	2.14	0.32	0.15	1.81	NA	0.71	-0.54	-0.46	-1.47	1.11	0.04	0.00	-1.68
Q9UKT4	FBXO5	-1.92	4.57	0.47	-0.51	0.60	-1.67	0.69	0.23	0.87	-1.18	0.74	0.40	0.83	-1.47

Q96SI9	STRBP	-1.91	3.16	0.72	0.30	1.59	-1.03	-0.02	-0.57	0.84	-1.66	0.36	0.07	1.01	-1.61
Q9UBU7	DBF4	-1.90	2.53	0.37	-1.24	1.34	-1.78	0.51	-0.27	1.28	-1.27	0.70	0.74	0.85	-1.23
Q6NS38	ALKBH2	-1.89	3.08	-0.26	-0.09	0.60	-1.64	1.23	1.52	0.84	-1.39	0.66	-0.38	0.24	-1.17
Q96FF9	CDCA5	-1.88	2.95	0.98	-0.94	1.12	-1.78	-0.18	0.69	1.03	-1.09	0.61	0.77	0.16	-1.37
Q9BWT6	MND1	-1.88	2.36	-0.09	-0.87	1.68	-1.95	0.23	1.55	0.49	-1.25	0.90	-0.17	0.50	-1.02
Q9UNS1	TIMELESS	-1.87	2.06	0.35	-1.44	1.92	-1.93	0.23	0.71	1.43	-0.93	0.61	0.11	0.30	-1.35
Q6P1M3	LLGL2	-1.87	1.47	2.87	0.77	1.30	-1.49	-0.61	-0.54	-0.62	-1.52	1.71	0.00	-0.66	-1.20
P08581	MET	-1.87	1.92	1.23	1.08	-0.08	-1.71	0.85	0.64	-0.12	-1.48	0.75	1.61	-1.76	-1.01
P61024	CKS1B	-1.86	3.24	0.75	-0.01	1.21	-1.71	-0.50	0.82	1.30	-1.23	0.52	-0.11	0.20	-1.25
P26045	PTPN3	-1.86	2.79	1.28	0.29	0.16	-2.70	-0.03	0.24	0.14	-0.96	0.71	1.07	0.32	-0.53
O00220	TNFRSF10A	-1.86	3.73	0.10	0.61	0.07	-1.22	1.33	1.08	0.92	-1.38	0.44	-0.21	0.01	-1.52
Q9BXL8	CDCA4	-1.85	2.88	0.21	-0.55	0.40	-2.15	1.41	0.95	0.11	-1.05	-0.08	0.57	1.10	-0.97
Q56A73	SPIN4	-1.83	2.70	1.17	-0.23	0.53	-1.91	-0.09	-0.32	-0.11	-1.09	0.86	0.78	0.41	NA
Q6ZMG9	CERS6	-1.83	3.93	0.20	0.07	0.48	-1.95	0.63	1.16	-0.14	-1.23	-0.47	0.34	0.08	-1.53
Q96FZ2	HMCES	-1.83	2.52	0.47	-0.50	0.39	-1.12	-0.78	0.29	0.44	-1.53	1.40	0.74	1.66	-1.46
Q8TBZ0	CCDC110	-1.82	2.32	1.17	NA	NA	-1.29	-0.79	0.36	0.93	-1.41	0.67	-0.05	1.53	-1.12
O43482	OIP5	-1.81	2.70	-0.37	-0.72	1.07	-2.01	0.72	0.12	0.79	-0.83	0.53	0.69	1.32	-1.20
Q92667	AKAP1	-1.81	3.72	1.03	-0.37	0.60	-1.28	0.67	-0.28	0.31	-1.32	1.22	0.52	0.36	-1.47
O75843	AP1G2	-1.81	2.14	0.20	1.42	-0.51	-1.19	-0.84	0.41	0.56	-1.77	0.77	1.99	0.07	-1.10
P28676	GCA	-1.80	1.64	1.62	0.75	0.49	-1.66	0.12	0.79	0.69	-1.39	0.56	1.31	-2.27	-1.00
Q9NRZ9	HELLS	-1.80	2.15	1.11	-1.17	1.50	-1.94	0.05	-0.30	1.00	-1.11	-0.03	0.89	1.00	-1.00
Q56NI9	ESCO2	-1.79	3.18	1.25	-0.39	0.28	-1.83	0.45	0.21	0.55	-1.14	1.21	-0.30	0.78	-1.07

Q69YH5	CDCA2	-1.79	2.27	0.00	-1.01	0.87	-1.77	0.31	0.62	1.22	-0.76	1.06	-0.44	1.40	-1.50
Q5T0W9	FAM83B	-1.79	1.42	1.61	1.00	-1.04	-1.27	-1.30	1.16	-0.48	-1.41	1.64	1.89	-0.45	-1.34
O75496	GMNN	-1.79	1.66	0.87	-2.36	1.30	-1.52	0.27	0.82	1.04	-1.34	0.34	1.03	0.70	-1.16
Q8N5P1	ZC3H8	-1.79	1.94	-0.53	-1.17	1.80	-1.46	1.04	-0.30	0.22	-1.31	0.68	1.34	0.95	-1.24
O14745	SLC9A3R1	-1.78	3.61	-0.09	0.84	1.07	-1.35	0.55	-0.31	0.37	-1.36	1.24	-0.06	0.40	-1.30
Q6ZN18	AEBP2	-1.77	2.09	0.21	-0.42	1.12	-1.56	-0.26	-0.62	1.00	-1.31	0.24	2.20	0.70	-1.06
Q6PCD5	RFWD3	-1.77	2.68	0.30	-0.74	1.36	-1.54	-0.08	0.97	1.18	-1.02	-0.19	0.26	0.90	-1.42
Q8WV74	NUDT8	-1.76	2.88	0.37	0.00	-0.25	-1.01	0.95	0.18	1.80	-1.52	0.89	-0.06	0.09	-1.42
Q8NI77	KIF18A	-1.76	2.91	1.57	-0.52	0.98	-1.79	0.05	-0.14	0.77	-0.98	0.28	0.56	0.39	-1.19
Q9NYP9	MIS18A	-1.76	2.18	-0.60	-0.93	1.52	-1.65	0.59	0.11	0.78	-0.89	0.23	0.73	1.52	-1.41
Q96MX3	ZNF48	-1.75	1.53	1.15	-0.53	1.57	-0.88	0.36	-1.68	-0.47	-1.29	1.78	0.70	1.07	-1.78
Q9BRL6	SRSF8	-1.75	2.96	-0.13	-0.30	1.79	-1.04	0.17	0.52	0.02	-1.74	0.86	0.38	0.38	-1.26
Q8WUY1	THEM6	-1.75	3.24	0.34	0.46	0.61	-0.79	-0.41	0.30	0.68	-1.28	1.35	0.82	-0.20	-1.87
Q9P289	STK26	-1.74	2.89	0.68	-0.18	0.80	-1.09	0.41	0.02	0.40	-2.19	-0.19	1.48	0.51	-0.64
Q9NPD8	UBE2T	-1.74	2.26	1.06	-0.61	1.38	-2.00	0.99	0.87	0.78	-1.26	0.32	-0.23	-0.64	-0.66
Q9P219	CCDC88C	-1.74	2.94	0.37	0.61	0.87	-1.27	1.08	-0.25	-0.04	-1.32	-0.14	1.74	0.23	-1.15
P46013	MKI67	-1.74	2.88	0.67	-0.73	1.34	-1.56	-0.09	0.30	0.24	-1.12	0.49	0.36	1.34	-1.24
Q9NYP3	DONSON	-1.73	3.19	0.14	-0.11	0.62	-1.87	-0.18	0.14	1.20	-0.88	-0.01	0.03	1.23	-1.43
Q92622	KIAA0226	-1.72	1.30	0.97	-0.90	-0.07	NA	-0.79	-0.29	0.59	-0.44	1.23	0.30	1.77	-2.38
Q9BUL9	RPP25	-1.72	1.32	0.12	-1.67	1.46	-0.95	2.05	1.41	0.72	-1.86	-1.33	0.97	0.15	-1.07
Q9HCM7	FBRSL1	-1.72	3.28	0.26	-0.42	0.78	-1.64	1.07	-0.57	0.56	-1.59	0.62	0.55	0.19	-0.92
Q9Y5Y0	FLVCR1	-1.72	3.35	-0.16	0.34	0.74	-1.05	0.63	1.13	0.54	-1.77	0.61	-0.63	0.66	-1.05
Q96ER3	SAAL1	-1.71	3.35	0.43	-0.41	1.08	-1.74	0.07	0.01	0.26	-1.39	0.86	0.97	0.58	-0.72

Q13309	SKP2	-1.71	1.96	-0.59	0.21	1.83	-0.91	-0.02	-0.59	0.96	-1.25	-0.23	1.62	0.65	-1.69
Q14493	SLBP	-1.71	3.92	0.90	-0.33	0.88	-1.44	0.04	-0.02	0.75	-1.21	-0.03	0.58	0.72	-1.32
Q99618	CDCA3	-1.71	2.21	0.66	-0.13	0.08	-1.63	-0.24	0.69	2.08	-0.88	-0.57	0.18	1.11	-1.33
Q2NKJ3	CTC1	-1.71	2.58	-0.04	NA	NA	-1.30	-0.19	1.08	1.34	-1.36	-0.04	0.29	1.15	-0.93
Q9Y5N6	ORC6	-1.71	2.10	0.12	-1.09	1.57	-1.66	-0.16	0.98	0.07	-0.92	0.81	0.12	1.43	-1.26
Q96JQ2	CLMN	-1.71	1.33	1.16	-0.30	-2.16	-1.14	-0.09	1.85	0.22	-1.80	0.40	1.85	0.90	-0.89
Q15527	SURF2	-1.70	2.68	0.79	-0.23	0.82	-1.34	0.19	-0.89	0.53	-1.32	1.53	0.74	0.35	-1.17
P49642	PRIM1	-1.70	2.42	0.04	-0.90	1.97	-1.49	0.19	0.27	0.89	-1.16	0.51	0.41	0.46	-1.18
A6ND91	ASPDH	-1.70	2.01	0.63	NA	NA	-1.06	-0.21	-0.33	1.47	-2.05	0.08	0.61	1.32	-0.47
Q5VV41	ARHGEF16	-1.70	1.39	1.50	-0.85	1.09	-1.24	-1.65	0.85	0.52	-1.32	1.84	1.27	-0.74	-1.27
Q14807	KIF22	-1.70	2.58	0.44	-1.24	0.89	-1.51	0.23	0.40	1.37	-1.16	0.41	0.58	0.75	-1.16
Q86Y91	KIF18B	-1.70	2.64	0.78	-1.18	0.57	-1.23	0.41	0.16	1.38	-1.10	0.35	0.56	0.79	-1.48
Q53HL2	CDCA8	-1.70	2.80	0.10	-0.23	1.01	-2.00	0.14	0.52	1.34	-0.80	0.43	-0.39	0.90	-1.01
O95229	ZWINT	-1.70	3.98	0.81	-0.48	0.79	-1.63	0.36	0.49	0.67	-0.70	0.30	0.46	0.42	-1.49
Q9BWG6	SCNM1	-1.69	2.33	0.59	-0.90	0.63	-2.39	0.39	0.81	1.27	-0.85	0.01	-0.20	0.54	-0.78
Q9Y3S1	WNK2	-1.69	1.45	0.67	-1.30	2.00	-1.01	0.38	-1.18	0.52	-0.76	1.04	0.09	1.57	-2.02
A9Z1Z3	FER1L4	-1.69	1.57	1.71	2.19	-0.21	-1.34	0.09	-0.18	-1.20	-1.91	0.52	0.12	0.76	-0.54
P56282	POLE2	-1.68	1.80	-0.49	-1.73	0.98	-1.69	0.93	0.27	1.33	-1.02	0.53	0.85	0.94	-1.15
Q5TH69	ARFGEF3	-1.67	1.68	1.50	1.15	-0.38	-1.63	0.55	0.34	-0.79	-1.39	1.01	1.63	-1.07	-0.68
P14859	POU2F1	-1.67	3.81	0.91	0.11	0.92	-1.50	-0.10	0.05	0.30	-1.60	0.79	0.67	0.12	-0.67
P11474	ESRRA	-1.67	1.55	1.38	-1.12	0.40	-1.52	-0.11	-0.69	-0.13	-1.79	1.44	1.98	0.41	-0.50
P04183	TK1	-1.67	2.88	1.48	-0.64	0.35	-1.65	-0.02	0.21	0.96	-0.82	0.62	0.28	0.52	-1.28
Q9BSM1	PCGF1	-1.67	2.26	0.47	0.36	1.60	-1.06	0.14	-0.17	1.40	-1.35	-0.79	-0.23	0.97	-1.33

P34896	SHMT1	-1.66	3.08	0.18	-0.27	0.43	-1.28	-0.16	0.03	0.82	-1.38	1.44	0.15	1.11	-1.09
Q9Y6K5	OAS3	-1.66	1.39	1.63	0.95	-0.71	-0.73	-0.47	2.07	-0.15	-1.83	0.70	1.11	-1.39	-1.18
Q9NYZ3	GTSE1	-1.66	3.74	0.68	0.10	0.58	-1.63	0.00	0.78	1.15	-1.03	0.20	-0.32	0.57	-1.08
Q9HAW4	CLSPN	-1.66	2.74	0.03	-0.54	1.06	-1.78	0.09	0.58	1.59	-0.86	0.23	0.34	0.49	-1.05
Q9UH17	APOBEC3B	-1.66	5.33	0.48	0.04	0.17	-1.41	0.48	0.60	0.36	-0.78	0.57	0.23	0.80	-1.54
Q6UWB1	IL27RA	-1.66	1.67	NA	NA	NA	-1.67	-0.10	1.31	0.60	-1.07	-0.71	0.56	1.64	-0.57
ENST00000396281_NCI-H23_Mis:T787M	ZMYND8	-1.65	3.05	0.11	-0.52	0.80	-1.98	0.46	1.13	0.30	-1.09	0.12	0.81	0.52	-0.64
Q5JUR7	TEX30	-1.65	2.74	0.50	0.73	1.29	-1.68	-0.70	-0.28	0.51	-1.03	0.61	1.10	0.46	-0.84
Q14978	NOLC1	-1.65	2.58	-0.20	-0.91	1.29	-1.50	0.64	0.06	0.79	-1.45	0.56	0.59	0.89	-0.75
Q01664	TFAP4	-1.65	2.09	0.62	-0.63	1.22	-1.49	0.90	-1.27	0.10	-1.07	0.89	1.04	0.46	-1.27
Q96CP7	TLCD1	-1.64	1.65	1.07	-1.14	-1.05	-1.46	0.65	1.70	1.12	-1.46	1.16	0.25	-0.06	-0.77
Q9Y2F5	ICE1	-1.64	2.29	0.16	-0.50	1.02	-0.80	0.46	-0.02	-0.35	-2.60	0.77	0.66	0.70	-0.55
Q7Z4S6	KIF21A	-1.63	3.97	0.20	0.08	0.68	-1.42	0.60	1.15	0.67	-1.49	0.27	0.14	-0.13	-0.76
Q9NUQ2	AGPAT5	-1.61	2.45	0.68	-0.52	0.55	-1.54	0.32	-0.57	0.24	-1.15	0.38	1.74	0.80	-0.93
Q9BUZ4	TRAF4	-1.61	1.88	1.12	0.01	0.76	-1.46	-0.67	1.05	0.93	-1.34	1.35	0.49	-1.22	-0.76
Q16763	UBE2S	-1.61	2.36	0.51	-1.14	0.70	-1.48	1.03	0.23	1.41	-1.20	-0.06	0.30	0.66	-0.94
O60825	PFKFB2	-1.61	2.29	1.58	0.13	-0.07	-1.20	-0.09	0.07	-0.21	-1.20	1.41	1.16	-0.37	-1.22
Q9BQ75	CMSS1	-1.61	2.09	0.28	-1.53	0.96	-1.55	0.56	-0.01	0.88	-1.23	0.77	1.04	0.65	-0.83
Q00059	TFAM	-1.60	2.70	-0.44	0.66	1.88	-1.15	0.11	-0.12	0.43	-1.27	0.23	0.49	0.35	-1.18
Q07864	POLE	-1.60	2.06	0.13	-1.44	0.87	-1.43	0.74	0.06	1.33	-1.03	0.22	0.55	1.13	-1.14
O95067	CCNB2	-1.59	3.77	0.40	-0.73	0.68	-1.30	0.28	0.50	0.74	-1.13	0.50	0.40	0.80	-1.16
O43194	GPR39	-1.59	2.57	-0.13	0.81	0.81	-0.89	0.75	-0.12	0.76	-2.25	0.10	0.84	-0.25	-0.43

Q9H2F3	HSD3B7	-1.59	1.46	1.34	-0.14	-0.42	-1.10	-0.12	1.58	1.26	-1.26	-0.68	-1.05	1.81	-1.20
Q86UD0	SAPCD2	-1.58	2.20	0.67	-0.18	1.28	-1.21	0.86	-0.77	-0.67	-0.89	0.85	0.41	1.09	-1.46
P11171	EPB41	-1.57	1.42	-0.38	-0.56	2.80	-1.14	0.64	-0.34	-0.31	-1.57	0.20	0.12	1.36	-0.83
Q96A22	C11orf52	-1.57	2.19	1.71	0.68	0.92	-1.16	-0.31	-0.95	0.20	-1.03	0.64	0.63	0.02	-1.34
Q02127	DHODH	-1.57	3.02	0.14	-0.53	1.41	-1.29	0.27	0.63	0.76	-0.98	0.41	-0.18	0.62	-1.26
A1L390	PLEKHG3	-1.57	2.95	0.30	0.31	-0.04	-1.27	0.18	0.73	0.26	-1.56	1.20	1.10	-0.51	-0.70
P61457	PCBD1	-1.57	1.89	0.36	0.72	2.21	-0.79	-0.19	1.01	-0.57	-1.33	-0.34	-0.11	0.45	-1.40
Q9BVX2	TMEM106C	-1.56	1.92	0.89	1.16	1.50	-1.33	-0.35	0.11	0.56	-0.66	0.52	-1.26	0.40	-1.54
Q9NPH0	ACP6	-1.56	1.64	-0.55	-0.21	1.52	-0.25	1.26	0.53	-0.61	-1.97	0.73	1.33	-0.49	-1.28
P42331	ARHGAP25	-1.56	1.32	0.61	1.54	-1.50	-1.02	0.36	1.56	-0.36	-2.61	0.14	0.46	0.69	0.12
P31350	RRM2	-1.56	1.57	0.91	-0.90	0.08	-1.89	0.16	1.60	1.63	-0.62	-0.59	-0.48	1.10	-1.00
Q53EU6	AGPAT9	-1.56	1.48	0.45	0.85	-0.93	-1.26	1.28	1.39	-0.11	-0.72	-1.03	-0.25	1.87	-1.52
Q8TF76	GSG2	-1.56	2.62	-0.05	-1.07	1.05	-1.33	0.45	0.25	0.93	-1.20	0.49	0.71	0.75	-0.98
P35270	SPR	-1.56	2.35	-0.37	-0.79	0.34	-0.41	1.02	0.95	1.00	-1.31	0.64	0.26	0.46	-1.78
P28749	RBL1	-1.56	2.09	0.98	-0.75	0.60	-1.73	1.19	-0.23	1.14	-0.75	-0.67	0.72	0.49	-1.04
P52732	KIF11	-1.56	2.60	0.61	-0.84	0.57	-1.79	0.00	0.45	0.88	-0.65	0.03	0.69	1.12	-1.07
Q96QF0	RAB3IP	-1.56	1.63	1.29	0.36	0.57	-2.71	0.03	-0.42	1.03	-1.03	0.42	0.33	-1.12	-0.11
Q99828	CIB1	-1.56	1.46	1.86	0.06	-0.21	-1.05	0.13	-0.17	-0.27	-1.50	1.59	1.67	-1.16	-0.95
O60566	BUB1B	-1.56	2.89	0.23	-0.90	0.35	-1.62	0.67	0.45	1.01	-0.74	0.84	0.34	0.52	-1.15
Q9HCJ3	RAVER2	-1.55	3.10	-0.16	0.26	0.31	-0.80	0.10	0.55	0.83	-0.99	0.35	-0.16	1.40	-1.70
Q8NCF5	NFATC2IP	-1.55	2.18	0.79	-1.21	0.09	-1.35	-0.15	0.47	1.11	-0.80	0.73	0.44	1.22	-1.34
P49247	RPIA	-1.55	2.23	-0.23	-1.05	0.35	-1.22	0.71	0.21	0.90	-1.32	1.56	0.76	0.26	-0.94
Q9UQL6	HDAC5	-1.54	2.12	-0.57	-0.82	0.32	-0.39	1.11	1.03	0.91	-1.29	0.78	0.21	0.48	-1.79

Q9NS91	RAD18	-1.54	1.91	-0.59	-0.98	0.93	-1.24	0.84	-0.09	0.90	-1.09	0.86	1.61	-0.04	-1.14
Q15038	DAZAP2	-1.53	1.70	0.98	0.19	1.55	-0.87	-0.29	0.38	1.77	-1.75	0.27	-1.06	0.10	-0.69
P25490	YY1	-1.53	3.55	-0.17	0.53	1.29	-1.39	0.48	0.32	0.09	-1.20	0.58	-0.19	0.51	-0.85
Q9NYY3	PLK2	-1.53	2.69	0.74	-0.64	0.53	-2.02	0.31	0.14	1.08	-0.51	0.24	0.70	0.36	-0.91
Q8NCD3	HJURP	-1.52	2.13	0.20	-1.02	0.13	-1.28	0.86	0.18	1.55	-0.98	-0.20	0.61	1.11	-1.16
Q96T88	UHRF1	-1.52	2.81	0.53	-0.23	0.90	-1.82	0.11	-0.13	1.21	-0.69	-0.05	0.28	0.81	-0.91
Q8TDP1	RNASEH2C	-1.52	2.04	0.25	0.19	1.18	-1.72	-0.54	-0.81	0.34	-0.78	1.23	1.27	0.31	-0.92
Q14566	MCM6	-1.52	2.33	0.13	-1.24	0.94	-1.30	-0.01	0.43	0.69	-1.08	0.82	0.61	1.04	-1.04
Q00796	SORD	-1.51	2.42	0.01	-0.37	0.90	-1.12	1.63	-0.05	-0.34	-1.21	1.02	0.20	0.39	-1.08
O95983	MBD3	-1.51	2.61	0.19	-0.08	1.42	-1.53	0.16	-0.58	0.67	-1.08	0.15	0.43	1.04	-0.79
O95759	TBC1D8	-1.51	1.51	-0.10	1.19	-0.58	-0.28	0.83	0.95	1.40	-1.36	-0.38	1.20	-1.13	-1.76
O43709	WBSCR22	-1.50	1.68	0.28	-1.47	1.06	-1.35	0.90	-0.78	0.65	-1.15	1.02	0.53	1.18	-0.88
Q9NV56	MRGBP	-1.50	3.47	0.47	-0.45	1.07	-1.10	0.51	0.38	0.97	-1.28	0.04	0.26	0.10	-0.99
Q8N165	PDIK1L	-1.50	2.00	0.41	-0.67	1.12	-1.58	-0.32	-0.29	0.69	-0.98	0.00	1.69	0.73	-0.81
Q01581	HMGCS1	-1.49	1.61	-0.52	0.32	0.17	-1.52	1.41	-0.07	-0.26	-1.31	0.97	2.01	-0.66	-0.53
O75330	HMMR	-1.49	1.41	1.34	-1.67	0.22	-1.98	-0.48	0.58	0.86	-0.49	0.83	0.13	1.54	-0.89
Q15072	ZNF146	-1.49	3.28	0.25	-0.36	0.84	-1.48	0.60	0.18	-0.09	-0.68	1.14	0.37	0.43	-1.19
Q9H4H8	FAM83D	-1.49	2.12	1.30	-0.84	-0.15	-1.37	-0.06	0.01	1.20	-0.92	0.25	0.41	1.24	-1.07
A6NEE1	PLEKHD1	-1.49	2.65	0.90	-0.40	0.37	-1.32	-0.48	0.49	1.27	-0.78	-0.11	0.76	0.56	-1.25
Q9BRJ6	C7orf50	-1.48	1.84	0.27	-0.64	0.42	-1.58	1.76	-0.68	-0.15	-1.22	0.68	1.17	0.51	-0.53
Q2VIQ3	KIF4B	-1.48	1.68	0.66	-0.76	1.35	-1.34	-0.56	-0.66	1.49	-0.81	-0.23	0.47	1.06	-1.34
Q86Y56	DNAAF5	-1.48	1.61	0.37	-0.92	0.28	-1.56	1.94	-1.03	0.31	-1.04	0.84	0.77	0.76	-0.73
Q6SJ93	FAM111B	-1.48	2.02	1.41	-0.29	1.41	-0.96	-0.20	0.20	-0.15	-0.74	-0.55	0.91	0.59	-1.62

Q04864	REL	-1.48	1.55	0.19	-1.19	-0.03	-1.31	0.79	0.18	2.40	-1.33	0.53	0.48	-0.02	-0.68
ENST00000287394_LIM2099_Mis:A41V	ATAD2	-1.48	3.23	0.72	-0.52	0.85	-1.46	-0.26	0.68	0.42	-0.95	0.62	0.65	0.17	-0.91
Q8IYQ7	THNSL1	-1.47	2.31	0.01	-0.53	0.83	-1.24	1.29	-0.67	0.79	-0.74	0.18	0.86	0.54	-1.32
P06493	CDK1	-1.46	4.09	0.77	0.18	1.01	-1.42	-0.12	0.29	0.26	-1.15	0.14	0.28	0.49	-0.72
Q8IZK6	MCOLN2	-1.46	2.02	-0.22	0.37	0.33	NA	1.25	0.75	-0.33	-1.38	0.33	-0.69	0.62	-1.01
Q9BRP1	PDCD2L	-1.46	2.77	0.45	-0.81	0.82	-1.08	0.71	-0.42	0.51	-1.08	0.60	0.68	0.77	-1.13
Q96LD4	TRIM47	-1.46	2.04	1.76	1.06	0.10	-0.51	0.14	0.35	0.39	-1.22	0.42	-0.20	-0.73	-1.55
ENST00000371072_SW620_Mis:G448R	RAVER2	-1.46	3.87	-0.11	0.22	0.68	-1.01	0.36	0.56	0.66	-0.83	0.26	-0.14	1.03	-1.37
ENST00000320756_NCI-H23_Mis:D129N	MAGOHB	-1.46	2.89	0.38	0.96	-0.14	-1.23	0.75	1.14	0.30	-1.39	-0.14	-0.36	0.39	-0.66
Q9P258	RCC2	-1.46	2.61	0.10	-0.60	1.40	-1.47	0.26	0.12	0.29	-1.36	0.45	0.62	0.64	-0.44
Q6P0N0	MIS18BP1	-1.46	2.61	-0.48	-0.64	0.73	-1.56	0.50	0.13	0.91	-0.96	0.57	0.81	0.75	-0.76
Q9NV92	NDFIP2	-1.45	1.79	0.25	0.50	0.19	-0.32	0.06	-0.80	0.31	-0.52	1.18	1.24	0.33	-2.44
P09884	POLA1	-1.45	1.91	-0.36	-0.51	1.85	-1.43	0.68	-0.10	0.34	-0.86	-0.32	0.55	1.12	-0.98
Q12834	CDC20	-1.45	2.48	0.18	-0.58	0.05	-1.41	0.13	0.57	1.45	-0.68	0.16	0.19	1.10	-1.17
Q9NUQ9	FAM49B	-1.44	2.60	0.41	1.06	-0.26	-1.08	-0.38	0.88	-0.22	-1.47	0.87	0.83	0.04	-0.69
P49005	POLD2	-1.44	2.80	0.81	-0.63	0.97	-1.33	-0.08	-0.02	0.73	-0.89	0.93	0.12	0.41	-1.02
Q9BU64	CENPO	-1.44	2.93	0.54	-0.03	0.97	-1.62	-0.42	0.52	0.23	-0.31	0.16	0.64	0.63	-1.30
Q8TF40	FNIP1	-1.43	2.67	0.01	0.38	0.93	-0.99	1.16	-0.06	-0.59	-1.28	0.96	0.44	-0.01	-0.94
Q9UQ49	NEU3	-1.43	3.16	-0.04	-0.10	0.59	-1.30	-0.40	0.55	0.57	-0.87	0.80	0.30	1.14	-0.98
Q96P11	NSUN5	-1.43	1.88	0.10	-1.55	1.12	-0.72	0.62	0.31	0.35	-1.10	0.79	0.81	0.65	-1.39
Q96GW9	MARS2	-1.42	2.20	0.13	-0.81	1.02	-1.02	0.47	-0.72	0.78	-1.04	0.61	0.71	1.02	-1.14

Q8IWS0	PHF6	-1.42	2.78	0.70	0.13	1.42	-1.24	0.04	0.17	0.58	-1.01	-0.60	0.24	0.53	-0.95
Q86VU5	COMTD1	-1.42	1.40	0.97	-0.46	2.02	-0.70	-0.19	0.31	-1.23	-1.17	0.02	1.45	0.30	-1.33
Q9BRX5	GINS3	-1.42	2.13	-0.07	-0.64	0.84	-1.32	0.07	0.79	0.83	-1.09	0.90	-0.67	1.16	-0.79
O75223	GGCT	-1.42	2.17	0.68	-0.73	0.83	-1.04	-0.24	-0.27	0.12	-1.28	1.50	0.81	0.48	-0.88
Q99880	HIST1H2BL	-1.42	2.50	-0.22	-0.44	1.31	-1.63	-0.04	0.41	0.79	-0.90	0.38	0.14	0.86	-0.66
Q13416	ORC2	-1.42	3.01	0.06	-0.83	0.61	-1.25	0.52	0.53	0.65	-1.17	0.30	0.47	0.90	-0.76
A0A1B0GTU1		-1.42	3.36	0.85	-0.14	0.77	-1.42	-0.18	-0.23	0.78	-0.98	0.53	0.40	0.41	-0.79
Q9C029	TRIM7	-1.42	1.42	-0.50	-1.14	-0.62	-1.72	1.41	1.21	0.14	-0.17	1.21	0.40	0.41	-1.52
Q96DY7	MTBP	-1.41	4.20	0.06	-0.07	0.92	-1.47	0.33	0.22	0.31	-0.84	0.37	-0.01	0.67	-1.00
Q99808	SLC29A1	-1.41	2.29	-0.60	-0.01	0.50	-1.49	0.67	0.58	0.89	-0.87	-0.64	0.60	1.18	-0.82
Q9NVQ4	FAIM	-1.41	2.23	0.07	0.74	0.45	-1.25	0.04	-0.79	-0.27	-0.89	1.05	0.92	1.25	-0.94
O94992	HEXIM1	-1.41	2.64	0.04	0.93	0.06	-0.92	-0.07	0.80	0.90	-1.24	-0.26	-0.35	1.13	-1.01
Q8IX07	ZFPM1	-1.41	1.61	0.65	0.03	2.16	-1.41	0.25	0.38	-1.14	-0.89	0.97	0.34	0.09	-0.68
Q5TBB1	RNASEH2B	-1.41	2.20	0.19	0.18	1.35	-1.48	-0.43	-0.56	0.24	-0.96	1.08	1.00	0.13	-0.73
Q08J23	NSUN2	-1.41	4.24	0.05	0.10	0.69	-1.08	0.28	-0.07	0.55	-1.25	0.97	0.47	0.15	-0.84
Q562F6	SGOL2	-1.41	1.67	0.73	-0.97	-0.04	-1.29	-0.27	0.47	1.98	-0.74	-0.41	0.38	0.74	-1.33
Q96R06	SPAG5	-1.41	1.72	0.51	-1.28	-0.05	-1.66	0.74	0.48	1.57	-0.58	0.43	-0.17	0.95	-0.93
O94762	RECQL5	-1.41	3.41	0.67	0.04	0.95	-0.80	0.73	0.31	0.39	-1.24	-0.13	-0.31	0.75	-1.04
Q6PEV8	FAM199X	-1.40	3.03	0.35	0.06	0.03	-1.08	-0.50	-0.21	0.83	-1.49	0.23	1.05	0.43	-0.88
Q8TE04	PANK1	-1.40	1.72	-0.47	-0.06	1.66	-0.10	-0.02	0.05	0.12	-1.02	0.55	0.06	1.25	-2.04
P49454	CENPF	-1.40	2.47	0.82	0.02	0.94	-1.44	-0.27	0.30	1.03	-0.73	-0.64	0.14	0.80	-0.98
P52701	MSH6	-1.40	1.97	-0.32	-0.68	0.80	-1.25	-0.13	0.48	1.75	-1.10	0.42	-0.05	0.88	-0.79
P41134	ID1	-1.40	2.73	0.23	0.13	0.72	-0.77	0.49	-0.22	-0.05	-0.41	0.98	0.26	0.61	-1.97

P28908	TNFRSF8	-1.40	2.75	0.53	1.14	0.23	-1.23	0.46	0.96	-0.02	-1.43	-0.17	-0.36	0.38	-0.48
P09874	PARP1	-1.40	3.74	-0.16	0.01	1.13	-1.04	0.36	0.11	0.54	-1.38	0.42	0.27	0.46	-0.73
Q6NXR4	TTI2	-1.40	2.00	-0.12	-1.15	0.71	-1.57	0.74	0.55	0.93	-0.29	0.36	0.21	0.91	-1.28
P25205	MCM3	-1.39	2.20	0.05	-1.10	0.99	-1.17	-0.22	0.34	0.93	-0.97	0.76	0.61	0.77	-1.00
Q9NQS7	INCENP	-1.39	2.87	0.30	-0.40	1.03	-1.24	0.00	0.32	1.21	-0.89	0.24	-0.14	0.57	-1.00
Q15054	POLD3	-1.39	2.02	0.54	-0.78	1.31	-1.30	-0.47	-0.08	1.02	-0.91	1.13	0.14	0.33	-0.92
O95073	FSBP	-1.39	1.86	0.10	-1.42	0.96	-1.38	-0.05	0.35	0.76	-0.78	0.86	0.50	1.07	-0.96
Q2KHR3	QSER1	-1.39	2.32	0.04	-0.75	0.95	-1.45	0.09	-0.34	0.52	-0.93	0.89	0.85	0.88	-0.75
O75582	RPS6KA5	-1.39	1.69	1.59	1.73	0.63	-0.34	-0.07	-0.18	-0.14	-1.19	0.67	-0.44	-0.09	-1.40
Q14CB8	ARHGAP19	-1.39	1.90	0.45	-0.92	0.74	-0.99	-0.52	0.74	1.56	-1.12	0.28	0.92	-0.12	-1.00
P49736	MCM2	-1.39	2.06	0.24	-1.19	0.02	-1.19	0.00	0.36	0.97	-0.82	0.95	0.67	1.10	-1.12
Q9BW19	KIFC1	-1.39	2.02	0.95	-0.76	0.21	-0.91	-0.59	0.68	1.40	-1.10	-0.14	0.77	0.59	-1.11
P33993	MCM7	-1.38	1.92	0.08	-1.40	0.94	-1.10	-0.06	0.40	0.87	-0.94	0.78	0.48	1.01	-1.06
Q32P51	HNRNPA1L2	-1.38	2.66	0.25	0.77	0.54	-0.77	0.07	-0.45	0.67	-0.53	-0.19	0.59	0.85	-1.81
O15446	CD3EAP	-1.38	3.14	-0.20	-0.12	0.01	-1.60	0.64	0.21	0.55	-1.11	0.73	0.53	0.74	-0.39
O15347	HMGB3	-1.37	1.60	0.33	0.25	2.26	-1.18	0.00	0.88	-0.04	-1.11	-0.83	-0.29	0.54	-0.81
Q8TF46	DIS3L	-1.37	2.74	0.03	0.42	0.14	-0.69	-0.45	0.40	0.10	-1.56	0.18	0.84	0.58	NA
Q15398	DLGAP5	-1.37	1.68	-0.73	-0.85	-0.09	-1.63	0.13	1.04	1.26	-0.44	1.01	0.38	0.94	-1.01
Q15543	TAF13	-1.37	2.39	0.25	-0.48	0.41	-1.26	0.52	1.03	0.66	-1.11	-0.47	-0.07	1.23	-0.71
Q8WW22	DNAJA4	-1.37	1.55	-0.19	1.23	0.65	-0.82	1.10	-1.00	-0.48	-0.82	1.50	-0.24	0.97	-1.28
P28340	POLD1	-1.37	3.23	0.23	-0.58	0.87	-1.20	0.09	0.16	0.83	-0.95	0.75	0.24	0.47	-0.92
Q9H329	EPB41L4B	-1.37	2.11	0.82	0.80	0.65	-0.96	0.36	0.25	0.25	-0.79	0.92	0.35	-1.32	-1.33

Q15910	EZH2	-1.36	2.73	0.33	-0.52	1.05	-1.05	-0.07	-0.12	0.99	-1.00	0.29	0.23	0.89	-1.02
O14929	HAT1	-1.36	3.19	-0.01	-0.33	0.69	-1.39	0.17	0.72	1.02	-0.96	0.12	0.06	0.62	-0.72
Q9BX26	SYCP2	-1.36	1.96	0.43	-1.28	1.16	-1.30	0.05	-0.07	0.74	-1.08	0.63	0.53	0.88	-0.69
Q9H0S4	DDX47	-1.36	1.80	-0.28	-1.18	0.83	-1.13	0.43	0.21	1.47	-1.20	0.06	0.47	1.06	-0.74
Q13112	CHAF1B	-1.36	2.28	0.08	-0.68	1.17	-1.46	0.02	-0.05	1.12	-0.77	0.26	0.22	0.93	-0.84
Q9BXW9	FANCD2	-1.36	3.06	0.05	-0.42	1.14	-1.33	0.70	0.62	0.36	-0.67	0.43	0.25	-0.06	-1.07
B7ZAP0	RABGAP1L	-1.36	2.63	0.93	0.46	0.04	-1.63	-0.31	0.28	1.27	-0.66	-0.13	0.26	0.41	-0.73
Q9H967	WDR76	-1.36	2.61	-0.02	-0.72	0.88	-1.30	0.40	1.01	0.72	-0.54	0.47	0.07	0.26	-1.23
P16403	HIST1H1C	-1.36	2.48	0.16	0.43	1.31	-1.04	0.21	0.92	-0.60	-0.90	-0.35	0.67	0.29	-1.12
Q05D32	CTDSPL2	-1.36	3.01	-0.21	-0.02	0.64	-1.40	0.29	0.44	0.43	-0.88	1.33	-0.11	0.28	-0.78
Q99661	KIF2C	-1.36	1.82	-0.36	-0.73	0.77	-1.42	-0.15	0.56	1.84	-0.71	0.45	0.01	0.66	-0.92
Q14676	MDC1	-1.36	1.75	0.47	-1.21	1.04	-1.35	-0.66	0.65	1.23	-0.94	0.48	0.76	0.30	-0.76
Q8NHQ9	DDX55	-1.36	2.52	-0.22	-0.81	0.39	-1.11	0.91	0.47	1.10	-1.19	0.37	0.24	0.60	-0.75
Q8NE31	FAM13C	-1.35	2.63	0.42	NA	NA	-0.84	0.83	-0.03	1.12	-1.12	-0.31	0.70	0.12	-0.88
O43760	SYNGR2	-1.35	1.84	1.43	1.57	0.39	-0.41	0.07	-0.45	0.25	-1.35	-0.28	0.33	-0.27	-1.29
P05026	ATP1B1	-1.35	1.56	1.25	1.16	-0.36	-1.60	0.76	0.53	-0.98	-0.76	1.16	0.16	-0.65	-0.68
Q8WWK9	CKAP2	-1.35	2.30	0.80	0.47	0.43	-1.24	-0.71	-0.44	1.31	-0.63	0.26	0.36	0.57	-1.17
Q96RR1	PEO1	-1.35	3.39	-0.14	-0.04	0.97	-1.03	0.55	-0.04	0.97	-1.17	0.04	0.25	0.46	-0.84
P57076	C21orf59	-1.35	2.04	-0.65	-0.36	1.00	-1.37	0.03	0.53	1.23	-1.03	-0.27	0.53	1.00	-0.64
Q92613	JADE3	-1.35	1.49	-0.12	0.37	2.01	-0.84	0.32	-0.93	0.54	-1.27	0.09	-0.22	1.56	-0.73
Q14542	SLC29A2	-1.35	2.90	0.02	-0.29	0.65	-0.95	1.05	-0.39	0.02	-1.11	0.72	0.66	0.59	-0.98
Q9BSY4	CHCHD5	-1.35	1.94	-0.49	-0.31	0.79	-1.54	0.48	0.94	0.87	-0.22	0.94	0.46	-0.65	-1.26
Q14691	GINS1	-1.34	1.97	-0.04	-0.43	0.67	-1.40	-0.12	0.80	0.95	-0.86	0.83	-0.81	1.18	-0.76

O75717	WDHD1	-1.34	1.91	-0.64	-0.99	0.67	-1.47	0.65	0.72	1.26	-0.80	0.66	0.21	0.48	-0.75
P18858	LIG1	-1.34	2.63	0.49	-0.50	1.21	-1.48	0.12	-0.22	0.34	-0.73	0.56	0.80	0.21	-0.80
Q9H5J8	TAF1D	-1.34	2.83	0.56	-0.53	0.74	-1.47	0.37	0.68	0.24	-1.14	-0.16	0.40	0.79	-0.38
P23434	GCSH	-1.34	1.58	0.08	-0.44	1.92	-1.23	0.97	0.39	-0.44	-0.92	1.00	-0.80	0.33	-0.87
O75419	CDC45	-1.34	1.93	0.02	-1.10	0.81	-1.73	0.20	-0.01	1.00	-0.55	0.64	0.93	0.52	-0.74
Q6ZNJ1	NBEAL2	-1.34	1.92	0.03	0.72	-0.35	-1.12	0.82	-0.49	0.06	-1.06	0.54	1.84	-0.15	-0.83
Q9NWK9	ZNHIT6	-1.34	2.24	0.01	-0.77	-0.12	-0.97	-0.10	0.78	0.50	-0.97	1.40	0.72	0.57	-1.06
P39748	FEN1	-1.34	3.16	0.60	-0.10	1.16	-1.24	-0.16	0.05	0.00	-1.05	0.71	0.55	0.19	-0.72
Q6UVJ0	SASS6	-1.33	4.39	0.13	-0.17	0.73	-1.15	-0.10	0.24	0.56	-1.01	0.62	0.46	0.39	-0.89
P49711	CTCF	-1.33	3.28	0.20	0.30	1.47	-1.05	-0.02	0.42	0.25	-1.02	0.12	0.09	0.17	-0.92
P06454	PTMA	-1.33	2.31	0.47	-0.39	1.45	-1.27	0.38	-0.10	0.26	-1.44	-0.08	0.31	0.69	-0.28
P39687	ANP32A	-1.33	3.19	-0.08	0.02	0.73	-1.23	0.97	0.80	0.46	-1.14	0.09	-0.23	0.23	-0.61
O60678	PRMT3	-1.33	2.69	0.67	-0.55	0.69	-1.22	0.56	-0.08	-0.14	-1.07	0.07	0.79	0.98	-0.70
Q9UNW9	NOVA2	-1.32	1.46	0.33	0.46	1.24	-1.36	0.15	-1.73	0.89	-1.00	0.71	-0.14	1.06	-0.61
P54278	PMS2	-1.32	2.45	0.25	-0.90	0.08	-1.22	0.77	0.57	1.00	-0.95	0.86	0.29	0.05	-0.81
Q8WVB6	CHTF18	-1.32	3.14	0.62	-0.16	0.63	-1.23	0.08	0.64	-0.05	-0.87	1.03	0.48	-0.30	-0.87
Q3LXA3	DAK	-1.32	2.22	0.51	-0.21	1.36	-0.51	0.35	0.77	-0.64	-0.99	0.68	0.00	0.15	-1.46
Q9BRT9	GINS4	-1.31	1.85	0.16	-0.63	0.63	-1.46	-0.10	0.42	0.82	-0.68	1.00	-0.72	1.36	-0.82
Q8WYN0	ATG4A	-1.31	2.79	0.05	-0.31	0.16	-0.63	0.51	-0.24	0.88	-0.94	0.95	0.12	0.83	-1.38
Q9Y3A0	COQ4	-1.31	2.44	0.67	-0.31	0.82	-0.62	0.57	-0.84	0.42	-1.11	0.39	0.88	0.52	-1.15
Q9NRC8	SIRT7	-1.31	2.19	1.52	0.05	0.89	-0.68	0.14	0.46	0.44	-1.07	-0.53	-0.39	0.35	-1.19
Q9Y248	GINS2	-1.31	2.00	0.24	-0.55	0.61	-1.51	-0.06	0.45	0.64	-0.83	0.99	-0.65	1.28	-0.60
P33992	MCM5	-1.31	2.02	0.02	-1.21	0.89	-1.08	-0.17	0.40	0.81	-0.89	0.77	0.62	0.80	-0.97

P30291	WEE1	-1.31	2.71	0.73	0.30	0.58	-1.45	0.14	-0.13	0.86	-0.57	-0.66	0.57	0.55	-0.92
Q99638	RAD9A	-1.31	2.58	0.50	-0.22	0.19	-0.80	1.07	0.18	1.34	-1.18	0.01	0.01	-0.14	-0.96
Q71DI3	HIST2H3A	-1.31	4.95	0.41	0.30	0.56	-1.06	0.24	0.78	0.34	-0.82	0.48	-0.18	0.23	-0.99
O00411	POLRMT	-1.31	2.01	0.18	0.05	1.27	-1.31	1.22	0.10	0.82	-1.02	-0.70	-0.30	0.29	-0.61
Q15102	PAFAH1B3	-1.31	4.14	0.31	0.44	0.64	-1.14	-0.08	0.65	-0.12	-1.04	0.77	0.09	0.25	-0.75
Q8WYH8	ING5	-1.30	1.98	-0.23	-0.99	1.36	-1.16	0.32	0.10	0.90	-0.79	0.39	0.24	0.86	-0.99
ENST00000351288_SW620_Mis:G617V	SMPD4	-1.30	1.83	-0.43	-1.11	1.23	-1.26	0.59	0.18	0.92	-1.00	0.38	0.26	0.90	-0.66
Q8IWF2	FOXRED2	-1.30	1.86	-0.13	0.73	1.05	-0.65	0.85	0.19	-0.35	-0.45	-0.74	0.36	0.96	-1.82
Q5UIP0	RIF1	-1.30	2.28	0.33	-0.98	0.96	-1.37	0.09	0.06	0.72	-1.00	0.66	0.36	0.73	-0.55
P00374	DHFR	-1.30	2.07	1.30	-0.35	0.72	-0.98	-0.37	-0.26	0.38	-0.70	0.80	-0.28	0.98	-1.23
Q15468	STIL	-1.30	1.35	-0.17	-1.29	0.08	-0.67	-0.10	0.71	1.93	-1.00	0.12	0.22	1.41	-1.25
P43246	MSH2	-1.30	1.92	-0.21	-0.63	1.02	-1.09	-0.16	0.27	1.57	-1.08	0.40	-0.17	0.82	-0.74
Q9Y6A5	TACC3	-1.30	2.47	0.62	0.26	-0.16	-1.48	0.20	0.58	1.25	-0.41	-0.54	0.42	0.30	-1.03
Q6PJG6	BRAT1	-1.29	1.90	0.47	-1.30	0.27	-1.03	1.32	0.06	0.41	-0.91	0.32	0.47	0.88	-0.97
Q8WY91	THAP4	-1.29	2.03	-0.02	-0.82	0.76	-1.24	0.99	-0.22	0.56	-0.94	-0.33	0.47	1.17	-0.84
O95239	KIF4A	-1.29	1.45	0.70	-0.84	1.32	-1.44	-0.53	-0.63	1.35	-0.72	-0.09	0.50	1.12	-0.75
P00492	HPRT1	-1.29	2.82	0.44	-0.23	0.96	-1.30	-0.25	0.40	0.57	-0.82	-0.34	0.54	0.82	-0.78
Q8TCA0	LRRC20	-1.29	1.40	1.71	0.42	0.71	-1.35	-0.31	0.52	-0.25	-0.77	-0.12	1.41	-1.18	-0.78
P33991	MCM4	-1.29	1.96	0.11	-1.26	0.94	-1.05	-0.09	0.36	0.69	-0.92	0.76	0.44	0.95	-0.94
Q9BVC3	DSCC1	-1.29	3.12	0.13	-0.17	0.78	-0.94	0.07	0.45	0.41	-0.80	0.91	0.72	-0.39	-1.16
A3KN83	SBNO1	-1.29	2.27	0.05	-0.77	0.63	-1.04	0.65	-0.13	1.06	-0.98	0.05	0.22	1.14	-0.87
Q5JS13	RALGPS1	-1.29	2.20	0.16	0.98	0.36	-1.07	-0.11	0.62	0.58	-0.97	-0.59	-0.40	1.30	-0.86

Q9UEE9	CFDP1	-1.29	1.81	-0.42	0.07	1.33	-1.37	-0.11	1.24	-0.31	-1.14	0.64	-0.35	0.80	-0.39
Q9UN79	SOX13	-1.28	2.45	0.26	0.39	0.35	-0.57	0.29	-0.48	0.59	-0.48	-0.10	1.01	0.56	-1.83
P35249	RFC4	-1.28	2.79	0.47	-0.41	1.28	-1.23	-0.05	0.42	0.19	-0.86	0.61	-0.09	0.45	-0.79
Q96C01	FAM136A	-1.28	1.44	-0.66	-1.45	1.29	-1.25	0.91	0.76	0.58	-0.66	-0.04	0.70	0.78	-0.97
Q9NQG5	RPRD1B	-1.28	3.57	0.68	-0.14	0.68	-0.73	0.35	0.17	0.75	-1.08	0.15	0.54	-0.30	-1.06
Q15785	TOMM34	-1.28	3.38	-0.09	0.27	0.41	-1.30	0.68	-0.02	0.56	-0.87	-0.21	0.97	0.30	-0.70
Q9GZS1	POLR1E	-1.28	3.00	-0.23	-0.18	0.36	-1.47	0.56	-0.11	0.74	-0.95	0.70	0.41	0.62	-0.45
P33981	TTK	-1.28	2.03	0.77	-1.05	0.32	-1.41	0.14	-0.07	1.00	-0.46	0.25	0.69	0.81	-1.00
Q13424	SNTA1	-1.27	2.57	0.46	1.12	-0.27	-1.54	0.36	0.61	-0.39	-0.90	0.58	0.18	0.21	-0.42
Q9NRR5	UBQLN4	-1.27	1.94	-0.08	0.13	-0.32	-1.19	0.22	1.19	1.28	-0.96	0.18	-0.67	0.94	-0.71
Q9Y4Y9	LSM5	-1.27	3.21	0.31	-0.59	0.66	-1.15	0.44	-0.14	0.69	-0.85	0.64	0.39	0.46	-0.85
O43278	SPINT1	-1.27	1.32	1.08	0.34	0.59	-0.70	-1.00	1.12	-0.89	-0.88	1.60	0.74	-0.50	-1.20
P20248	CCNA2	-1.27	2.24	0.16	-0.82	0.24	-1.28	0.39	0.23	1.39	-0.74	-0.06	0.66	0.52	-0.89
Q9NPA3	MID1IP1	-1.27	1.48	0.07	-0.35	1.15	-1.45	1.36	1.01	-0.15	-0.77	0.51	0.23	-1.28	-0.73
Q14181	POLA2	-1.26	2.03	0.14	-0.78	1.54	-1.37	0.29	-0.06	0.32	-0.61	0.06	0.57	0.78	-0.86
P49643	PRIM2	-1.26	2.16	-0.08	-0.60	1.55	-1.07	0.31	0.08	0.68	-0.79	-0.17	0.40	0.67	-0.98
Q9Y448	KNSTRN	-1.26	1.63	0.21	-1.21	0.16	-1.48	0.82	0.16	1.33	-0.55	0.55	-0.24	1.05	-0.81
Q9Y6I4	USP3	-1.26	2.79	-0.11	0.08	0.66	-1.26	0.77	0.37	-0.40	-0.93	1.08	0.39	0.00	-0.64
Q8NHX9	TPCN2	-1.26	1.50	0.72	NA	NA	-0.64	-0.23	-0.17	1.25	-1.68	0.89	0.78	-0.60	-0.32
Q9P031	CCDC59	-1.26	2.43	0.03	-0.96	0.57	-1.02	0.41	0.10	0.87	-1.06	0.76	0.40	0.65	-0.75
O15226	NKRF	-1.26	2.24	0.42	-0.39	1.16	-1.15	-0.08	0.00	0.85	-1.05	-0.51	0.81	0.56	-0.62
P54105	CLNS1A	-1.26	3.32	-0.19	-0.40	0.34	-1.11	0.59	0.12	0.80	-0.97	0.38	0.45	0.73	-0.75
Q15022	SUZ12	-1.26	2.53	0.35	-0.39	1.15	-1.18	-0.47	0.10	0.81	-0.91	0.51	0.18	0.59	-0.74

Q9UHN1	POLG2	-1.26	1.99	-0.29	-0.30	0.76	-0.78	0.28	-0.83	0.98	-1.29	0.84	0.96	0.42	-0.75
Q15554	TERF2	-1.25	1.66	0.01	-0.11	1.95	-0.98	-0.18	0.54	-0.79	-1.02	0.65	0.05	0.71	-0.82
O43169	CYB5B	-1.25	1.56	1.19	-0.41	0.36	-0.75	-0.67	1.10	-0.97	-0.98	0.60	0.50	1.11	-1.10
Q9BVW5	TIPIN	-1.25	1.41	-0.13	-1.30	1.50	-0.77	0.04	0.44	1.47	-1.29	0.50	-0.27	0.56	-0.76
Q9BXK1	KLF16	-1.25	1.80	0.45	-0.36	0.08	-1.66	0.39	-0.72	1.36	-0.71	0.10	0.44	1.08	-0.45
Q8NCN4	RNF169	-1.25	1.50	0.46	-0.76	1.12	-2.24	-0.30	-0.08	1.09	-0.29	0.26	0.73	0.30	-0.29
Q9UQR0	SCML2	-1.25	1.58	-0.59	-0.65	0.21	-1.31	0.58	1.20	1.10	-0.62	-0.72	0.41	1.11	-0.94
Q9UBZ4	APEX2	-1.24	1.56	0.00	-0.31	1.41	-1.44	0.95	0.48	0.46	-0.64	-1.21	-0.42	0.50	-1.03
Q96GX5	MASTL	-1.24	1.89	0.41	-0.79	-0.56	-1.23	0.48	1.05	0.60	-0.51	-0.10	1.11	0.60	-1.06
Q9H869	YY1AP1	-1.24	1.66	1.09	-1.34	0.15	-1.13	0.20	0.61	1.11	-0.94	0.39	-0.21	0.80	-0.73
Q9UGN5	PARP2	-1.24	2.16	-0.34	-0.41	0.36	-1.52	0.97	1.04	0.77	-0.74	0.50	-0.23	0.12	-0.53
Q9NZ63	C9orf78	-1.24	2.74	0.35	-0.51	0.69	-1.11	0.58	0.06	0.66	-0.88	-0.42	0.62	0.76	-0.80
P37287	PIGA	-1.24	2.22	-0.27	-0.47	1.09	-0.88	1.02	0.16	0.33	-1.07	-0.25	0.92	0.55	-0.73
Q8NCW5	APOA1BP	-1.24	1.90	0.50	-0.24	-0.06	-0.90	0.22	1.38	1.28	-0.91	-0.39	-0.47	0.55	-0.97
Q9UBX3	SLC25A10	-1.24	1.82	0.63	0.14	1.08	-0.75	0.97	1.21	-0.11	-0.91	-0.46	-0.77	0.09	-1.12
Q92547	TOPBP1	-1.24	2.55	0.39	-0.59	0.61	-1.11	-0.20	-0.08	1.01	-0.84	0.17	0.77	0.68	-0.83
Q08945	SSRP1	-1.24	2.97	-0.38	-0.30	0.83	-1.02	0.92	0.51	0.45	-0.94	0.42	0.00	0.33	-0.83
Q9P2W1	PSMC3IP	-1.24	1.88	-0.15	-0.52	1.11	-1.53	0.21	1.21	0.40	-0.76	0.77	-0.46	0.07	-0.53
Q9H5V9	CXorf56	-1.24	1.97	0.55	-0.27	1.35	-1.22	-0.19	-0.28	1.13	-1.03	-0.30	0.13	0.65	-0.53
O43663	PRC1	-1.23	2.53	0.69	-0.21	-0.18	-1.39	0.46	1.04	0.76	-0.62	0.50	-0.29	0.01	-0.77
P40937	RFC5	-1.23	2.76	0.14	-0.54	1.02	-1.16	-0.06	0.44	0.36	-0.86	0.83	0.03	0.55	-0.75
Q8IVF6	ANKRD18A	-1.23	2.08	0.44	-1.19	0.47	-1.18	-0.01	0.40	0.70	-0.96	0.36	0.31	1.02	-0.72
O95900	TRUB2	-1.23	2.77	0.36	-0.43	1.18	-1.10	0.14	-0.15	0.54	-0.95	0.09	0.31	0.73	-0.71

Q8N3U4	STAG2	-1.23	3.52	0.47	0.06	0.92	-1.04	-0.22	-0.17	0.30	-0.82	0.30	0.72	0.38	-0.90
Q96H22	CENPN	-1.22	3.58	0.46	0.08	0.59	-1.10	0.14	0.80	0.23	-0.60	0.07	-0.22	0.78	-1.00
P35250	RFC2	-1.22	2.88	0.24	-0.49	1.05	-1.12	-0.01	0.44	0.26	-0.88	0.71	-0.04	0.59	-0.75
Q9NRG0	CHRAC1	-1.22	2.14	0.28	-0.76	0.58	-0.50	0.03	-0.43	0.79	-1.18	0.90	0.82	0.50	-1.09
Q96DX5	ASB9	-1.22	3.66	0.50	0.21	0.16	-0.59	-0.16	0.37	0.39	-1.03	-0.15	0.53	0.90	-1.13
Q13057	COASY	-1.22	2.13	1.08	-0.11	-0.20	-0.80	0.50	0.53	-0.57	-0.68	1.22	0.27	0.03	-1.28
Q5HYK3	COQ5	-1.22	1.63	0.16	-0.23	0.78	-0.48	-0.23	-0.57	-0.03	-0.69	0.87	0.28	1.70	-1.56
O75530	EED	-1.21	2.37	0.48	-0.51	1.02	-0.93	-0.25	-0.34	0.40	-0.93	0.90	0.69	0.33	-0.87
Q96HA7	TONSL	-1.21	2.96	0.69	-0.35	0.18	-1.40	-0.08	0.07	0.26	-0.61	0.44	0.81	0.72	-0.72
Q9BSJ6	FAM64A	-1.21	1.44	0.24	-0.82	0.73	-1.47	-0.41	0.80	1.84	-0.46	-0.24	-0.11	0.70	-0.79
Q8N531	FBXL6	-1.21	1.89	-0.29	0.26	0.04	-0.86	-0.75	-0.12	0.44	-0.94	0.93	1.35	0.93	-0.90
P41162	ETV3	-1.21	1.85	0.43	-0.72	0.07	-1.59	-0.29	0.39	1.41	-0.82	0.83	0.13	0.06	-0.45
P23526	AHCY	-1.21	2.14	0.17	-0.68	0.79	-1.07	0.65	0.75	0.02	-1.04	-0.49	0.52	0.97	-0.60
Q6PK04	CCDC137	-1.21	2.50	0.20	-0.35	0.92	-0.92	0.57	0.86	0.76	-0.91	-0.36	-0.28	0.39	-0.89
O15355	PPM1G	-1.21	2.57	-0.23	-0.70	0.68	-1.02	-0.01	0.65	0.44	-1.04	0.71	0.57	0.61	-0.66
P46926	GNPDA1	-1.20	2.44	0.54	1.16	-0.31	-0.84	0.22	0.23	-0.11	-0.74	0.02	-0.11	1.08	-1.13
Q9NR33	POLE4	-1.20	1.72	0.08	-1.02	0.37	-1.11	0.99	-0.61	0.73	-0.84	0.30	0.85	1.00	-0.75
Q9HAW0	BRF2	-1.20	1.70	-0.30	-1.05	0.73	-1.25	0.87	0.32	0.41	-0.72	0.06	1.44	0.23	-0.73
Q9NQ34	TMEM9B	-1.20	1.64	-0.52	NA	NA	-0.59	0.09	1.32	1.32	-1.16	0.14	-0.04	0.21	-0.77
P46020	PHKA1	-1.20	1.54	1.36	0.42	-0.02	-1.27	0.31	-0.31	0.44	-0.18	-1.10	1.05	0.56	-1.25
P07305	H1F0	-1.20	1.87	1.35	0.39	1.06	-1.49	-0.36	0.01	0.72	-0.71	-0.32	-0.07	-0.09	-0.50
Q05BQ5	MBTD1	-1.20	1.62	0.81	-0.40	1.12	-0.53	-0.16	-0.95	0.28	-0.64	1.14	0.32	0.52	-1.52

ENST00000331079_CAPAN-1_Mis:R179H	PRMT3	-1.20	2.80	0.56	-0.44	0.71	-0.92	0.34	-0.31	0.01	-0.95	0.30	0.78	0.82	-0.80
P33316	DUT	-1.19	2.41	-0.15	-0.58	1.05	-1.20	0.65	0.38	0.36	-0.61	0.64	0.56	-0.22	-0.87
O43683	BUB1	-1.19	2.02	0.03	-0.65	0.22	-0.57	0.09	0.77	0.83	-1.41	-0.42	0.51	1.12	-0.78
Q9BW85	CCDC94	-1.19	2.27	0.02	0.38	0.72	-1.12	-0.16	0.45	1.49	-1.02	-0.20	-0.13	0.11	-0.55
Q9Y2R4	DDX52	-1.19	2.01	-0.29	-0.98	0.52	-1.03	0.10	0.87	0.97	-0.96	0.28	0.79	0.41	-0.70
Q96HY7	DHTKD1	-1.19	1.66	0.42	-0.48	-0.18	-1.20	-0.28	1.58	0.61	-0.69	0.33	-0.45	1.13	-0.79
Q9H9F9	ACTR5	-1.19	2.67	0.27	-0.24	0.65	-0.69	0.54	0.39	1.26	-1.04	-0.19	0.01	-0.02	-0.94
Q9NZJ0	DTL	-1.19	1.82	0.21	-0.85	1.21	-1.56	0.39	-0.30	0.29	-0.30	0.58	0.43	0.81	-0.78
P81274	GPSM2	-1.19	1.39	1.30	-0.07	-0.30	-1.20	-0.54	-1.01	1.14	-0.31	0.44	0.87	0.85	-1.16
P31152	MAPK4	-1.19	3.79	0.54	NA	NA	-0.69	0.28	0.18	0.23	-1.32	0.23	0.48	0.57	-0.49
Q14202	ZMYM3	-1.19	2.09	0.33	-0.39	1.22	-1.11	-0.33	-0.08	0.74	-0.88	-0.17	0.29	1.06	-0.69
P0DPI3		-1.19	1.64	-0.54	-0.14	1.56	-1.37	0.54	-0.56	0.24	-1.18	0.68	0.57	0.32	-0.12
Q9UNK9	ANGEL1	-1.19	2.17	-0.51	-0.53	0.09	-0.95	0.38	1.24	0.77	-0.86	0.39	0.04	0.68	-0.89
Q86UX6	STK32C	-1.19	1.54	-0.25	-0.51	0.88	-0.28	1.17	-0.37	0.55	-0.80	0.08	-0.37	1.21	-1.68
Q99807	COQ7	-1.19	2.39	0.21	0.14	1.12	-0.70	0.49	-0.73	0.55	-0.84	0.30	0.05	0.86	-1.03
Q9P275	USP36	-1.19	2.73	0.11	-0.64	0.91	-1.04	0.40	0.53	0.60	-0.88	0.31	-0.16	0.61	-0.74
Q969Y2	GTPBP3	-1.18	2.67	-0.26	-0.42	0.96	-0.70	0.29	-0.01	0.91	-1.06	0.19	0.51	0.48	-0.90
Q8NE01	CNNM3	-1.18	2.30	-0.02	0.18	0.52	-0.63	0.23	-0.31	1.26	-0.74	0.96	-0.14	-0.04	-1.29
Q9H9L3	ISG20L2	-1.18	2.97	0.51	-0.60	0.35	-1.03	0.29	0.56	0.83	-1.11	0.20	0.48	0.04	-0.52
O75362	ZNF217	-1.18	1.54	0.73	0.00	-0.79	-0.91	-0.31	-0.09	1.11	-0.80	0.73	-0.29	1.57	-0.95
Q9UI43	FTSJ2	-1.18	2.94	-0.03	-0.39	0.52	-0.91	0.99	-0.09	0.67	-0.66	0.15	0.37	0.46	-1.08
Q8IX90	SKA3	-1.18	1.55	-0.48	-0.13	-0.60	-1.50	-0.05	-0.05	0.96	-0.71	0.26	1.31	1.24	-0.50

P23025	XPA	-1.17	2.13	1.07	-0.03	1.32	-0.84	-0.27	-0.49	0.07	-0.91	0.26	0.28	0.42	-0.89
Q9HAV4	XPO5	-1.17	2.16	-0.05	-0.87	0.39	-1.00	0.67	0.32	0.88	-1.01	-0.04	0.32	1.02	-0.63
O75792	RNASEH2A	-1.17	2.42	0.41	-0.08	0.94	-1.27	-0.34	-0.32	0.22	-0.76	0.89	0.77	0.15	-0.61
O15318	POLR3G	-1.17	1.85	-0.28	-0.52	0.43	-1.35	0.89	0.17	1.24	-0.71	-0.46	0.32	0.84	-0.57
Q9H9L4	KANSL2	-1.17	2.92	0.44	-0.01	0.92	-0.63	0.23	-0.32	0.71	-1.11	0.60	-0.23	0.29	-0.89
Q02224	CENPE	-1.17	2.42	0.83	-0.40	-0.26	-1.04	0.22	-0.29	0.81	-0.85	0.83	0.07	0.66	-0.81
O75208	COQ9	-1.17	2.29	0.05	-0.34	0.91	-0.95	0.38	0.44	-0.36	-0.80	0.15	0.09	1.32	-0.89
P51617	IRAK1	-1.17	2.13	0.65	0.08	0.48	-0.38	-0.18	0.38	0.11	-0.60	-0.56	0.85	0.84	-1.65
Q9BS16	CENPK	-1.17	1.88	1.13	-0.54	1.31	-1.27	-0.28	-0.12	0.24	-0.63	0.16	0.04	0.68	-0.73
Q9P287	BCCIP	-1.17	3.08	0.01	-0.40	0.33	-1.01	1.11	0.28	0.49	-1.00	0.33	0.26	0.22	-0.61
Q9NW38	FANCL	-1.16	1.97	0.14	-0.73	1.21	-0.89	0.88	-0.06	0.39	-0.66	-0.26	0.32	0.86	-1.03
Q5T280	C9orf114	-1.16	1.95	0.66	-0.60	1.05	-0.91	0.00	-0.76	0.69	-0.77	0.23	0.73	0.63	-0.94
Q99640	PKMYT1	-1.16	3.21	0.64	-0.47	0.49	-0.84	0.18	0.56	0.41	-0.44	0.16	0.36	0.28	-1.34
Q9NR81	ARHGEF3	-1.16	1.85	0.78	NA	NA	-0.39	0.83	-0.36	-0.41	-1.03	0.39	0.15	1.06	-1.02
Q9BRD0	BUD13	-1.16	2.98	0.28	-0.28	1.07	-1.09	-0.21	0.21	0.28	-0.80	0.22	0.71	0.34	-0.72
P42166	TMPO	-1.16	3.43	-0.01	-0.41	0.65	-1.13	0.38	0.42	0.33	-0.76	0.57	0.05	0.63	-0.72
Q96S55	WRNIP1	-1.15	1.61	0.43	-1.00	0.54	-0.86	0.43	0.31	1.09	-1.07	-0.80	0.61	0.99	-0.67
Q9BW71	HIRIP3	-1.15	1.76	0.20	-0.74	0.83	-1.13	0.11	1.33	0.37	-0.39	0.88	-0.08	-0.30	-1.07
P49914	MTHFS	-1.15	2.15	-0.07	0.27	0.53	-0.63	1.10	1.05	-0.30	-0.93	0.53	-0.02	-0.49	-1.03
P49407	ARRB1	-1.15	1.83	0.92	0.21	0.61	-0.41	-0.98	-0.09	0.48	-1.14	0.76	0.89	-0.22	-1.04
Q96PZ0	PUS7	-1.15	1.47	-0.09	-1.00	0.83	-1.13	-0.23	-0.27	0.90	-1.07	0.15	1.08	1.23	-0.39
Q9HBT6	CDH20	-1.15	1.60	-0.15	-0.61	0.33	-1.71	0.10	0.11	1.08	-0.43	0.03	1.48	0.38	-0.39
Q9NVX2	NLE1	-1.15	2.71	-0.18	-0.47	0.19	-0.97	0.40	0.65	0.19	-0.99	1.11	0.35	0.36	-0.63

P25685	DNAJB1	-1.15	1.87	1.09	0.05	0.79	-1.12	-0.36	-0.47	0.09	-0.80	-0.11	0.19	1.32	-0.67
P05141	SLC25A5	-1.15	2.23	0.50	-0.30	0.81	-0.98	-0.11	0.55	0.81	-0.88	-0.76	0.48	0.62	-0.73
Q9BRR8	GPATCH1	-1.14	5.34	0.38	-0.06	0.23	-0.87	0.17	0.41	0.68	-0.75	0.38	0.25	0.14	-0.96
Q1ZZU3	SWI5	-1.14	1.70	1.00	-0.72	-0.14	-1.39	0.31	-0.04	0.31	-0.28	-0.46	0.70	1.11	-1.07
Q96F63	CCDC97	-1.14	2.91	0.26	0.16	0.48	-0.98	0.33	0.48	-0.64	-0.86	0.27	0.24	1.00	-0.74
Q9BUP3	HTATIP2	-1.14	1.42	1.52	0.08	-0.22	-0.12	0.90	0.45	-0.72	-0.93	-0.23	0.95	-0.15	-1.52
Q12931	TRAP1	-1.14	2.23	0.22	-0.62	1.19	-1.24	0.52	-0.13	0.36	-0.68	-0.10	0.46	0.67	-0.65
Q13601	KRR1	-1.14	3.35	0.11	-0.50	0.55	-0.84	0.47	0.11	0.76	-0.86	0.57	0.15	0.35	-0.87
Q96E29	MTERF3	-1.14	2.76	0.22	-0.43	0.77	-0.84	0.20	-0.35	0.76	-0.74	0.31	0.42	0.74	-0.95
Q96BR5	COA7	-1.14	2.26	-0.97	0.30	0.71	-0.83	0.36	0.08	0.63	-1.05	0.86	0.35	0.23	-0.68
Q9HCC0	MCCC2	-1.14	1.40	0.85	-0.77	1.51	-0.57	0.69	-0.51	-0.47	-0.94	0.46	-0.20	1.00	-1.04
Q86WQ0	NR2C2AP	-1.13	2.74	0.59	0.01	-0.08	-0.89	-0.05	1.25	0.45	-0.59	-0.07	0.11	0.35	-1.07
Q8NI60	ADCK3	-1.13	1.31	0.01	-0.46	0.93	-0.61	0.43	-1.34	0.63	-0.68	0.95	0.04	1.35	-1.26
Q9HCI7	MSL2	-1.13	2.50	0.59	0.08	0.43	-1.26	-0.56	-0.42	0.61	-0.66	0.21	0.82	0.06	-0.86
Q9P0K8	FOXJ2	-1.13	1.91	1.65	-0.03	-0.25	-0.87	-0.23	0.07	0.86	-1.02	-0.09	0.24	0.33	-0.65
Q14680	MELK	-1.13	2.01	1.23	-0.26	0.55	-1.40	-0.16	-0.48	0.67	-0.34	0.34	0.19	0.54	-0.78
P16383	GCFC2	-1.13	2.17	-0.25	-0.46	0.23	-0.71	0.28	-0.16	0.98	-0.79	0.14	0.60	1.17	-1.04
P10412	HIST1H1E	-1.13	1.53	0.24	0.39	1.97	-0.95	-0.34	0.75	-0.30	-0.82	-0.42	0.36	-0.11	-0.77
P61604	HSPE1	-1.13	3.00	0.29	-0.39	0.64	-0.89	0.24	-0.22	0.72	-1.00	0.65	0.04	0.56	-0.65
Q96NB3	ZNF830	-1.13	4.07	0.57	-0.24	0.21	-0.91	0.09	0.44	0.55	-0.96	0.28	0.03	0.60	-0.66
Q02790	FKBP4	-1.12	1.54	-0.69	-0.24	0.49	-1.11	0.03	0.01	1.81	-0.99	0.36	-0.05	0.81	-0.42
P35251	RFC1	-1.12	3.33	-0.07	0.00	0.91	-1.20	0.13	0.04	0.54	-0.83	0.45	0.07	0.47	-0.50
O43929	ORC4	-1.12	3.93	0.30	-0.28	0.37	-0.88	0.46	0.49	0.01	-1.00	0.11	0.35	0.71	-0.64

Q7Z6J9	TSEN54	-1.12	2.35	0.06	-0.43	1.04	-0.49	0.88	-0.17	0.49	-0.85	0.51	0.16	-0.01	-1.18
P42695	NCAPD3	-1.12	2.16	0.81	-0.85	0.86	-1.02	0.44	0.23	0.51	-0.69	0.62	-0.26	0.16	-0.81
Q96MN5	TCEANC2	-1.12	3.35	-0.10	-0.16	0.42	-0.89	0.55	0.43	0.71	-0.74	0.54	-0.28	0.50	-0.86
Q96AT1	KIAA1143	-1.12	2.40	0.10	-0.68	0.85	-1.22	0.50	0.16	0.53	-0.86	0.69	-0.07	0.44	-0.43
Q99728	BARD1	-1.12	2.11	0.84	-0.61	-0.29	-1.13	-0.04	0.44	0.69	-0.32	0.90	0.16	0.42	-1.06
Q5T9S5	CCDC18	-1.12	1.78	1.11	0.75	0.70	-0.53	-0.56	0.49	-0.84	-0.87	-0.02	0.52	0.35	-1.11
Q9UKN8	GTF3C4	-1.12	2.18	0.45	-0.42	0.44	-0.99	-0.44	-0.40	0.72	-0.91	0.72	0.63	0.81	-0.62
Q15583	TGIF1	-1.12	2.19	-0.08	0.13	0.58	-0.84	-0.01	0.05	1.56	-0.90	0.54	-0.24	0.14	-0.71
Q9ULJ8	PPP1R9A	-1.11	1.96	0.33	0.31	-0.24	-0.85	0.90	0.85	0.36	-0.88	0.22	0.77	-1.00	-0.78
O15525	MAFG	-1.11	1.71	0.70	-0.32	1.39	-0.51	0.66	0.95	-0.40	-0.95	-0.24	0.01	-0.26	-1.04
Q9HC21	SLC25A19	-1.11	1.74	-0.26	-0.95	0.94	-0.80	1.35	0.17	0.40	-0.95	0.17	0.16	0.53	-0.75
Q13428	TCOF1	-1.11	2.12	0.46	-0.38	0.70	-0.89	-0.23	-0.55	0.65	-0.98	1.05	0.21	0.61	-0.64
Q9Y5J9	TIMM8B	-1.11	1.75	-0.56	-1.01	0.88	-1.02	0.26	0.87	0.48	-0.96	0.36	0.62	0.58	-0.52
Q06203	PPAT	-1.11	1.73	-0.33	-0.20	0.52	-1.04	0.46	-0.77	1.37	-0.87	0.86	0.07	0.51	-0.58
O00268	TAF4	-1.11	3.41	0.41	-0.52	0.65	-0.73	0.19	0.23	0.63	-0.97	0.14	0.31	0.45	-0.79
P40938	RFC3	-1.11	3.66	0.37	-0.34	0.62	-1.05	0.02	0.17	0.29	-0.76	0.68	0.18	0.50	-0.68
Q96G46	DUS3L	-1.11	2.45	-0.02	-0.48	0.70	-0.72	0.64	-0.14	-0.01	-0.90	0.12	0.97	0.71	-0.87
P11586	MTHFD1	-1.11	1.77	-1.08	-0.19	0.35	-0.87	0.68	1.00	0.91	-0.75	0.64	0.01	0.18	-0.88
P35790	CHKA	-1.11	1.60	0.17	0.06	0.52	-1.19	-0.34	-0.74	0.53	-0.66	1.65	0.76	0.04	-0.59
Q7L2Z9	CENPQ	-1.11	2.73	0.94	-0.22	0.61	-1.10	-0.29	0.06	0.40	-0.46	0.41	0.06	0.60	-0.90
Q8IVS2	MCAT	-1.10	2.35	0.18	0.00	1.20	-0.80	0.77	-0.50	0.39	-0.73	0.09	-0.14	0.49	-0.94
Q5SVZ6	ZMYM1	-1.10	2.01	-0.47	-0.24	0.03	-1.13	-0.21	0.56	0.89	-0.89	0.64	0.08	1.15	-0.48
Q9Y6V7	DDX49	-1.10	1.87	-0.30	-0.80	0.68	-0.92	0.22	-0.01	0.98	-1.05	0.07	0.84	0.81	-0.51

Q8TDN6	BRIX1	-1.10	2.75	-0.03	-0.50	0.29	-0.72	0.42	0.14	1.07	-0.84	0.64	0.26	0.19	-0.92
Q9Y221	NIP7	-1.10	1.70	-0.61	-0.56	0.90	-0.98	0.43	0.03	1.16	-0.94	-0.27	0.52	0.87	-0.55
P23771	GATA3	-1.10	2.08	0.02	0.30	1.05	-0.76	0.64	0.57	0.42	-0.82	-0.42	-0.73	0.63	-0.90
Q96RG2	PASK	-1.10	1.49	0.72	-0.72	0.17	-1.49	0.28	0.32	1.45	-0.36	-0.59	0.02	0.83	-0.63
O75054	IGSF3	-1.10	1.62	0.17	0.51	-0.52	-0.90	-0.29	0.12	1.78	-0.58	0.64	0.23	-0.27	-1.03
Q9UHD1	CHORDC1	-1.10	1.55	-0.24	-0.72	1.16	-1.06	-0.24	0.09	-0.02	-0.99	1.46	0.53	0.46	-0.43
Q96MW7	TIGD1	-1.10	1.52	-0.23	0.55	0.34	-0.65	0.40	1.15	0.20	-0.98	-0.57	-0.59	1.54	-0.72
O75607	NPM3	-1.10	1.49	-0.80	-0.95	0.98	-1.21	0.68	0.98	0.59	-0.82	0.02	0.61	0.36	-0.44
Q9Y388	RBMX2	-1.10	1.44	0.63	-1.22	1.59	-1.13	-0.05	0.26	0.47	-0.83	-0.09	0.31	0.59	-0.51
O95758	PTBP3	-1.09	1.33	1.18	1.26	0.37	-0.59	-0.17	-1.06	-0.42	-0.90	1.05	0.48	-0.22	-0.96
O15287	FANCG	-1.09	2.21	0.11	-0.65	0.59	-1.23	0.29	-0.03	0.47	-0.50	0.15	0.34	1.18	-0.72
O43768	ENSA	-1.09	2.15	0.86	-0.57	0.94	-0.78	-0.16	0.05	0.96	-0.70	-0.04	0.17	0.25	-0.98
Q9NZJ6	COQ3	-1.09	2.20	0.09	-0.46	0.53	-0.91	0.78	-0.59	0.38	-0.47	0.69	0.27	0.75	-1.07
Q8TCS8	PNPT1	-1.09	1.45	-0.61	-0.61	0.42	-0.87	1.61	0.06	1.26	-0.90	0.04	0.03	0.25	-0.68
Q14CZ7	FASTKD3	-1.09	1.56	0.69	-0.48	1.19	-0.76	0.17	-1.14	0.49	-0.88	0.79	0.34	0.58	-0.75
Q92979	EMG1	-1.09	1.93	-0.06	-0.89	0.43	-0.96	0.19	0.28	1.26	-0.93	0.09	0.47	0.67	-0.55
A6NKF1	SAC3D1	-1.09	2.10	0.24	-0.26	0.68	-0.82	0.00	-0.43	-0.35	-0.59	1.00	0.82	0.55	-1.11
Q8WUK0	PTPMT1	-1.09	1.38	0.75	-0.07	0.67	-0.68	0.11	-1.05	-0.79	-0.78	0.81	1.12	0.89	-0.99
P18754	RCC1	-1.09	2.29	0.25	-0.56	0.98	-0.88	0.37	-0.06	0.79	-1.02	0.24	-0.22	0.65	-0.55
Q9ULX3	NOB1	-1.09	1.56	-0.10	-0.61	1.49	-1.08	0.93	-0.10	-0.56	-0.85	0.46	0.26	0.66	-0.51
Q9GZL7	WDR12	-1.08	1.86	-0.50	-0.95	0.74	-1.06	0.59	0.39	0.70	-0.90	0.62	0.27	0.57	-0.47
Q96GQ7	DDX27	-1.08	3.07	0.34	-0.43	0.55	-0.79	0.20	0.40	0.99	-0.90	0.16	0.03	0.19	-0.75
Q49AR2	C5orf22	-1.08	2.73	0.24	-0.20	-0.05	-0.92	0.47	0.24	1.06	-1.05	0.37	-0.23	0.53	-0.47

P38398	BRCA1	-1.08	2.04	0.55	-1.02	0.16	-0.84	0.07	0.34	0.80	-0.64	0.90	0.27	0.36	-0.95
Q03154	ACY1	-1.08	1.86	0.34	1.33	0.26	-0.87	-0.83	-0.09	0.08	-0.53	0.74	0.07	0.53	-1.04
A8MT69	STRA13	-1.08	1.44	-0.21	-1.07	1.08	-1.09	0.25	0.43	1.11	-0.54	0.50	-0.49	0.84	-0.81
Q15021	NCAPD2	-1.08	2.83	0.05	-0.37	0.53	-1.12	0.03	0.14	1.03	-0.68	0.16	0.49	0.36	-0.62
Q6P087	RPUSD3	-1.08	2.21	-0.47	-0.26	1.02	-0.83	0.89	-0.15	0.63	-0.88	0.16	0.13	0.49	-0.72
Q9Y244	POMP	-1.08	1.46	-0.22	0.77	0.81	-0.49	-1.19	0.66	0.42	-1.06	-0.42	1.00	0.59	-0.87
P46087	NOP2	-1.08	1.57	-0.63	-0.41	0.99	-0.91	0.27	-0.16	1.24	-0.93	-0.35	0.57	0.90	-0.58
O75771	RAD51D	-1.07	4.00	0.05	-0.13	0.15	-0.86	0.60	0.23	0.23	-1.03	0.16	0.65	0.48	-0.52
Q86VI4	LAPTM4B	-1.07	1.31	-0.13	-0.09	0.07	-0.63	0.25	-0.43	-0.31	-0.71	2.23	0.37	0.47	-1.08
Q6ZR08	DNAH12	-1.07	1.64	0.15	-0.51	1.03	-0.40	0.68	0.16	0.00	-0.08	0.23	0.04	0.64	-1.93
Q71F23	CENPU	-1.07	2.80	0.96	-0.04	0.64	-0.86	-0.26	0.23	-0.01	-0.65	0.23	-0.06	0.70	-0.91
Q8IWI9	MGA	-1.07	1.96	0.11	-1.18	0.25	-0.88	0.61	0.38	0.36	-0.75	0.71	0.65	0.52	-0.77
Q14657	LAGE3	-1.07	2.04	-0.51	0.04	0.23	-0.54	0.65	1.16	0.78	-0.87	0.13	-0.42	0.34	-1.00
O14757	CHEK1	-1.07	1.65	0.35	-0.75	1.48	-0.99	-0.26	0.10	0.16	-0.71	0.47	0.95	-0.10	-0.70
Q13206	DDX10	-1.07	3.14	0.25	-0.40	0.53	-1.14	0.24	0.05	0.56	-0.72	0.04	0.42	0.71	-0.54
Q15906	VPS72	-1.07	5.12	0.32	-0.12	0.27	-0.67	0.46	0.27	0.55	-0.81	0.26	0.04	0.34	-0.92
Q9Y2K7	KDM2A	-1.07	1.75	0.32	-0.91	0.47	-0.67	1.00	-0.16	1.20	-0.87	0.30	0.27	-0.10	-0.86
P33552	CKS2	-1.06	1.98	0.59	0.02	1.08	-1.02	0.18	-0.75	-0.25	-0.66	0.18	0.51	0.83	-0.71
Q8N5I9	C12orf45	-1.06	1.34	-0.09	-1.18	0.80	-1.18	0.72	-0.77	0.56	-0.65	0.73	0.71	0.91	-0.57
Q86XI2	NCAPG2	-1.06	2.43	0.59	-0.82	0.35	-0.91	0.15	0.23	0.89	-0.58	0.45	0.27	0.28	-0.90
Q9BTC0	DIDO1	-1.06	3.12	0.58	0.65	0.62	-0.97	-0.05	0.31	0.39	-0.80	0.42	-0.29	-0.23	-0.63
Q13185	CBX3	-1.06	2.27	0.35	-0.25	1.20	-0.94	-0.09	-0.19	0.08	-0.91	0.79	-0.02	0.51	-0.55
Q96CU9	FOXRED1	-1.06	1.84	0.66	0.40	0.21	-0.65	0.38	-1.03	-0.17	-1.31	0.56	0.76	0.60	-0.43

Q9UNA1	ARHGAP26	-1.06	1.32	-0.12	1.67	0.73	-0.44	0.23	0.25	-0.53	-1.20	1.05	-0.20	-0.68	-0.75
Q9UPW0	FOXJ3	-1.06	2.21	-0.41	-0.15	0.23	-0.80	-0.02	0.15	0.99	-0.97	1.12	0.05	0.43	-0.61
Q9NRF9	POLE3	-1.06	2.03	0.22	-0.73	0.61	-0.94	0.28	-0.50	0.48	-0.66	0.34	0.80	0.88	-0.78
Q13951	CBFB	-1.06	1.85	0.03	0.39	1.53	-1.01	0.33	0.10	-0.43	-0.67	-0.31	0.00	0.73	-0.71
Q9H0H5	RACGAP1	-1.06	2.00	0.59	-0.23	0.73	-1.23	-0.16	0.57	1.09	-0.27	-0.19	-0.28	0.25	-0.87
Q15003	NCAPH	-1.06	2.83	0.11	-0.23	0.59	-1.08	-0.05	0.03	1.00	-0.71	0.34	0.57	0.10	-0.55
Q9NXE8	CWC25	-1.06	3.32	0.46	-0.36	0.44	-0.74	-0.24	0.68	0.37	-0.84	0.42	0.16	0.46	-0.80
P38432	COIL	-1.06	2.20	0.39	-0.47	0.38	-0.81	0.05	0.18	1.05	-0.90	0.96	-0.33	0.15	-0.67
Q9NTJ3	SMC4	-1.05	3.06	0.32	-0.45	0.61	-1.02	0.00	-0.05	0.61	-0.76	0.59	0.37	0.37	-0.59
P0CG12	CHTF8	-1.05	1.77	0.68	-0.43	-0.13	-0.68	-0.81	0.20	0.51	-0.81	0.97	0.40	0.96	-0.88
Q9Y5S9	RBM8A	-1.05	3.17	-0.07	0.10	0.41	-1.02	0.21	0.35	0.89	-0.92	0.35	-0.26	0.38	-0.42
Q9HCK1	ZDBF2	-1.05	2.67	0.12	NA	NA	-0.69	0.02	0.75	0.53	-1.13	0.50	0.46	-0.17	-0.38
Q70EL1	USP54	-1.05	1.55	0.75	-0.94	0.81	-0.61	0.16	-0.49	0.59	-0.97	-0.11	0.39	1.21	-0.78
P22102	GART	-1.05	2.06	-0.54	-0.43	0.13	-1.14	0.30	0.35	0.54	-0.75	0.29	0.56	1.17	-0.47
Q7Z3B3	KANSL1	-1.05	2.49	0.53	-0.37	0.42	-0.70	0.20	-0.45	0.71	-0.63	0.86	0.18	0.30	-1.03
P10809	HSPD1	-1.05	2.15	-0.15	-0.29	1.03	-0.88	0.50	-0.16	0.45	-1.03	0.66	-0.32	0.66	-0.45
Q9NW13	RBM28	-1.05	1.40	-0.15	-1.10	0.64	-0.89	0.59	-0.09	0.99	-0.86	-0.42	1.09	0.81	-0.61
Q9BSH5	HDHD3	-1.05	1.52	1.50	1.12	-0.10	-0.35	-0.47	-0.48	0.12	-1.19	0.29	0.30	0.07	-0.82
Q96IY1	NSL1	-1.05	3.73	0.52	-0.04	0.76	-1.14	0.27	0.16	0.42	-0.63	0.25	0.02	0.01	-0.59
Q9UIG0	BAZ1B	-1.05	1.56	-0.09	-1.10	1.15	-0.88	0.41	0.02	-0.08	-0.79	0.82	0.32	0.91	-0.68
Q6ZW49	PAXIP1	-1.05	2.12	0.25	-0.84	1.07	-0.71	0.19	0.35	0.67	-0.91	0.10	0.03	0.53	-0.74
Q9UHJ3	SFMBT1	-1.05	2.64	0.13	0.14	0.60	-0.93	0.32	0.65	0.64	-0.60	0.69	-0.62	0.08	-0.74
P50851	LRBA	-1.05	2.03	0.71	0.71	0.63	-1.02	-0.04	-0.12	-0.62	-1.02	0.88	0.29	-0.09	-0.31

Q9H7E9	C8orf33	-1.04	1.73	-0.66	-0.64	0.49	-0.79	0.42	-0.04	0.69	-0.67	1.24	0.24	0.62	-0.89
P62306	SNRPF	-1.04	3.63	0.27	-0.25	0.66	-1.02	0.53	0.31	0.29	-0.68	0.42	-0.16	0.27	-0.64
Q9NRN9	METTL5	-1.04	2.89	0.21	-0.27	0.76	-1.14	0.06	0.30	0.17	-0.57	0.02	0.90	0.20	-0.64
Q5T5X7	BEND3	-1.04	2.71	-0.03	-0.02	0.84	-1.16	0.29	-0.45	0.58	-0.65	0.29	0.33	0.51	-0.53
Q92506	HSD17B8	-1.04	2.41	0.41	0.41	0.35	-0.78	0.40	0.63	-0.32	-0.98	0.71	0.43	-0.68	-0.58
Q9NUL7	DDX28	-1.04	1.87	-0.03	-0.70	1.33	-0.80	0.23	-0.11	0.16	-0.59	0.12	0.65	0.69	-0.94
Q29RF7	PDS5A	-1.04	3.22	-0.23	0.22	0.95	-0.90	0.36	0.40	0.40	-0.85	-0.07	0.01	0.29	-0.59
Q9UKS6	PACSIN3	-1.04	2.18	0.29	0.37	-0.44	-1.01	-0.28	0.44	-0.18	-0.79	0.45	1.19	0.49	-0.54
Q96L50	LRR1	-1.04	2.57	-0.61	-0.25	0.30	-0.93	0.54	0.14	0.63	-0.59	0.49	0.50	0.61	-0.81
Q14137	BOP1	-1.04	2.22	-0.41	-0.72	0.74	-0.93	0.43	0.26	0.65	-0.82	0.49	0.51	0.40	-0.58
Q4VC31	CCDC58	-1.04	1.93	0.39	-0.52	0.69	-0.91	0.36	-0.68	0.58	-0.77	0.61	0.96	-0.07	-0.65
Q13111	CHAF1A	-1.04	2.06	0.19	-0.25	0.81	-1.14	0.01	-0.26	1.23	-0.53	0.23	-0.14	0.53	-0.66
O95359	TACC2	-1.04	2.72	0.38	0.40	0.10	-0.98	0.53	0.57	0.41	-0.99	0.06	-0.62	0.50	-0.36
P53350	PLK1	-1.04	1.87	0.53	-1.00	0.38	-0.89	0.35	-0.15	0.95	-0.45	0.19	0.66	0.41	-0.99
A8MXV4	NUDT19	-1.03	1.81	-0.35	0.41	0.34	-0.53	0.90	-0.46	0.00	-0.87	0.71	-0.35	1.13	-0.93
O75127	PTCD1	-1.03	1.97	0.31	-0.87	1.02	-0.74	0.21	-0.24	0.54	-0.67	0.46	0.17	0.71	-0.92
Q69YU5	C12orf73	-1.03	1.85	-0.26	-0.82	0.83	-0.80	0.23	0.43	0.54	-1.16	0.81	0.63	-0.05	-0.37
P58876	HIST1H2BD	-1.03	1.62	0.20	0.15	1.87	-1.13	-0.22	0.27	-0.18	-0.56	-0.10	0.29	0.04	-0.63
Q9Y2Z4	YARS2	-1.03	1.42	-0.41	-0.11	0.72	-0.91	-0.24	-0.23	1.08	-0.85	-0.62	0.88	1.26	-0.56
Q9BWT1	CDCA7	-1.03	1.53	-0.35	-0.93	0.70	-0.99	0.08	0.12	1.04	-0.83	0.04	0.45	1.17	-0.50
O75152	ZC3H11A	-1.03	2.52	0.80	-0.22	0.66	-0.79	-0.32	-0.32	0.64	-0.89	0.30	0.48	0.30	-0.64
Q9H9A7	RMI1	-1.03	2.00	0.56	-0.62	0.27	-0.93	-0.40	-0.11	0.46	-0.82	0.32	0.62	1.11	-0.60
Q8IZT6	ASPM	-1.03	1.72	0.38	-0.55	0.34	-1.15	0.36	0.16	1.00	-0.33	-0.30	-0.27	1.19	-0.84

Q14562	DHX8	-1.03	2.86	0.32	-0.18	0.49	-0.81	0.05	-0.39	0.59	-0.82	0.89	0.20	0.36	-0.69
O60828	PQBP1	-1.03	2.16	-0.20	-0.37	1.09	-0.92	0.37	-0.05	0.64	-0.83	0.00	0.02	0.82	-0.56
Q9BQ67	GRWD1	-1.03	3.00	-0.45	-0.01	0.63	-0.94	0.57	-0.06	0.43	-0.80	0.49	0.21	0.50	-0.57
P0C860	MSL3P1	-1.02	2.86	0.31	-0.41	0.23	-0.58	0.24	0.13	-0.06	-0.86	0.32	0.96	0.60	-0.86
P33240	CSTF2	-1.02	3.35	0.54	-0.22	0.57	-0.90	-0.09	0.47	0.62	-0.81	-0.12	0.30	0.23	-0.59
O75817	POP7	-1.02	2.38	-0.08	-0.43	0.05	-0.51	0.58	0.22	0.40	-1.03	0.79	0.89	-0.13	-0.76
Q9NX01	TXNL4B	-1.02	1.37	-0.72	-0.59	1.67	-0.72	0.57	0.39	-0.14	-0.73	0.35	-0.04	0.81	-0.85
Q9ULW3	ABT1	-1.02	1.71	-0.07	-0.82	0.80	-0.79	-0.02	0.08	1.07	-0.95	-0.19	0.67	0.78	-0.56
Q9H9Y6	POLR1B	-1.02	1.96	-0.52	-0.60	0.28	-0.88	0.58	-0.07	0.39	-0.82	0.62	1.02	0.58	-0.60
O15156	ZBTB7B	-1.02	1.53	1.13	-0.38	0.37	-0.63	-0.65	1.16	0.84	-1.05	0.17	-0.22	-0.11	-0.62
Q16778	HIST2H2BE	-1.02	2.95	0.16	0.14	1.17	-0.59	-0.05	0.04	0.45	-0.77	0.00	0.40	0.32	-0.83
O75940	SMNDC1	-1.02	3.39	-0.04	0.12	0.69	-0.97	-0.05	0.30	0.22	-0.97	0.07	0.32	0.67	-0.35
Q9NX58	LYAR	-1.02	1.34	-0.74	0.03	1.35	-0.92	0.78	-0.32	0.76	-0.97	-0.68	0.29	0.83	-0.41
Q9NVP1	DDX18	-1.02	1.84	-0.07	-0.89	-0.24	-0.91	0.37	0.56	0.60	-0.97	0.76	0.81	0.40	-0.41
Q9Y5B6	PAXBP1	-1.02	4.75	0.00	0.47	0.41	-0.77	0.07	0.14	0.66	-0.83	0.24	0.24	0.06	-0.69
P11387	TOP1	-1.02	2.32	-0.14	-0.42	0.83	-1.06	0.27	0.21	0.59	-0.71	-0.12	0.17	0.90	-0.52
Q9BSV6	TSEN34	-1.01	3.97	-0.05	-0.01	0.11	-0.83	0.48	-0.03	0.43	-0.72	0.30	0.30	0.75	-0.74
Q9NRP4	SDHAF3	-1.01	1.83	-0.96	-0.22	0.49	-0.92	0.54	0.25	0.69	-0.68	0.70	0.02	0.84	-0.65
Q13547	HDAC1	-1.01	3.64	0.22	-0.19	0.67	-0.69	0.19	0.08	0.43	-0.94	0.42	-0.11	0.57	-0.65
Q99848	EBNA1BP2	-1.01	2.24	-0.19	-0.50	0.54	-0.64	0.27	-0.13	1.08	-0.76	0.68	0.26	0.27	-0.87
Q92989	CLP1	-1.01	3.47	0.12	-0.43	0.45	-0.67	0.70	0.07	0.42	-0.82	0.26	0.36	0.32	-0.79
Q8WWC4	C2orf47	-1.01	2.83	0.06	-0.48	0.76	-0.81	0.27	-0.12	0.45	-0.80	0.50	0.22	0.62	-0.67
P78549	NTHL1	-1.01	1.72	0.11	-1.05	0.26	-0.78	0.46	0.68	1.13	-0.82	0.36	0.34	-0.21	-0.73

Q96RP9	GFM1	-1.01	1.44	0.52	-0.86	0.73	-1.08	0.47	-0.89	0.25	-0.60	1.07	0.72	0.27	-0.60
Q8NCE0	TSEN2	-1.01	2.24	-0.56	0.04	0.38	-0.79	1.02	-0.09	0.66	-0.62	0.40	0.54	-0.13	-0.87
Q969Z0	TBRG4	-1.01	2.20	0.56	-0.69	0.72	-0.75	-0.17	-0.02	0.31	-0.94	0.59	0.19	0.80	-0.58
Q8NBT2	SPC24	-1.01	1.79	0.31	0.14	0.17	-1.18	-0.18	0.80	0.46	-0.38	-0.58	-0.12	1.27	-0.70
P01730	CD4	-1.01	1.63	0.10	0.54	1.62	-0.73	-0.50	-0.38	0.65	-0.73	0.12	0.36	0.54	-0.54
Q9NWU1	OXSM	-1.00	1.84	0.21	-0.09	0.63	-0.51	1.46	0.10	0.31	-0.56	0.15	-0.41	-0.09	-1.19
Q96EU6	RRP36	-1.00	1.71	-0.27	-0.95	0.71	-0.93	0.24	0.49	0.79	-0.86	-0.05	0.43	0.87	-0.46

Appendix table 3- CAF enriched proteins from basal state secretome

Accession	Gene	Log_2(CAF / Cancer)	-log_{10}(p value)	H747	LIM2099	SW620	Colorectal CAF	H1792	H2030	H23	Lung CAF	CAPAN1	DANG	MIAPACA2	PSC
P34741	SDC2	4.91	5.44	-2.35	-0.33	-1.35	4.96	-1.23	-0.76	-1.12	2.37	-0.95	-0.92	-2.04	3.73
Q14573	ITPR3	4.36	3.71	-2.47	0.92	-0.32	1.57	-0.97	-0.73	-1.46	4.26	-1.33	-1.59	-2.48	3.77
Q2UY09	COL28A1	4.21	4.60	-1.28	0.99	-1.76	2.70	-0.16	-1.26	-1.57	3.44	-1.33	-1.44	-2.09	3.18
ENST00000472056_NCI-H23_Mis:T117M	COL6A3	3.62	5.23	-1.00	0.21	-0.62	1.88	-1.46	-1.09	-0.97	3.86	-1.11	-1.24	-0.87	2.40
P07585	DCN	3.61	3.81	-0.94	-0.81	-0.86	3.96	-0.86	-0.87	-0.89	3.84	-0.98	-0.95	-0.99	0.33
Q9H1J7	WNT5B	3.58	4.93	-0.05	-1.23	-1.17	2.10	0.12	-0.44	-1.30	3.65	-1.14	-1.17	-1.69	2.32
P02461	COL3A1	3.43	7.24	-0.90	-0.54	-0.75	2.69	-0.92	-0.67	-0.88	3.24	-0.96	-1.02	-1.10	1.79
P43235	CTSK	3.40	3.64	-0.55	-0.12	-0.61	3.42	-1.12	-0.24	-0.87	3.66	-1.06	-1.18	-1.92	0.57
Q12841	FSTL1	3.38	8.07	-1.17	-0.66	-0.86	2.37	-0.16	-0.70	-0.94	2.62	-1.00	-0.91	-1.23	2.62
P24593	IGFBP5	3.38	3.47	-0.89	-0.35	-0.82	4.62	-0.70	-0.66	-0.85	2.48	-0.98	-1.06	-1.29	0.50
P02452	COL1A1	3.36	5.31	-1.14	0.52	-0.91	1.95	-0.60	-0.83	-1.04	3.21	-1.11	-1.14	-1.31	2.40
Q9HC97	GPR35	3.27	4.25	-1.18	0.82	-0.77	1.35	-0.86	-0.67	-0.95	3.30	-1.19	-1.20	-1.36	2.71
P08123	COL1A2	3.03	6.53	-0.91	-0.51	-0.67	2.04	-0.91	-0.79	-0.84	3.06	-0.97	-0.98	-0.25	1.73
Q8N130	SLC34A3	3.01	3.90	-1.26	-0.07	-0.78	2.08	1.02	-0.85	-1.58	1.78	-1.11	-1.04	-1.11	2.92
P35442	THBS2	2.98	8.38	-0.86	-0.50	-0.73	1.70	-0.80	-0.72	-0.78	2.61	-0.61	-0.81	-0.90	2.39
Q16270	IGFBP7	2.94	4.75	-0.70	0.53	-0.76	2.37	-0.53	-0.91	-0.96	1.42	-1.16	-0.74	-1.38	2.82
Q9NRN5	OLFML3	2.91	5.95	-0.82	-0.40	-0.65	2.11	-0.82	-0.85	-0.02	2.88	-0.89	-0.95	-1.15	1.56
P35555	FBN1	2.91	5.18	-0.92	-0.51	-0.77	1.75	0.62	-0.81	-1.09	2.55	-0.95	-1.04	-1.08	2.25
P12107	COL11A1	2.84	3.66	-1.10	-0.25	-0.65	1.32	0.79	-0.58	-1.44	1.77	-1.25	-0.85	-1.07	3.30

P48740	MASP1	2.84	3.66	-0.58	-0.58	-0.72	3.12	-0.89	-0.64	-0.72	3.06	-0.50	-0.94	-0.84	0.21
Q8NBP0	TTC13	2.82	3.56	-1.20	0.37	-1.58	1.00	0.47	-0.96	-0.85	3.08	-1.01	-0.61	-0.98	2.26
Q6UXH9	PAMR1	2.78	6.49	-0.90	-0.48	-0.72	2.22	-0.72	-0.14	-0.51	2.55	-0.81	-0.89	-1.09	1.49
P35556	FBN2	2.75	4.31	-0.92	-0.59	-0.69	2.69	-0.79	-0.69	-0.78	2.84	-0.90	0.06	-0.89	0.66
P12110	COL6A2	2.74	4.38	-0.94	0.60	-0.86	1.27	-0.47	-0.71	-0.98	2.96	-1.01	-0.99	-0.81	1.94
Q9GZV7	HAPLN2	2.74	2.69	NA	NA	NA	NA	-0.35	NA	NA	2.19	-1.31	-1.12	-0.87	1.46
Q9UBP4	DKK3	2.74	5.07	-0.77	0.20	-0.74	1.74	-0.37	-0.70	-0.81	2.95	-0.88	-1.00	-1.08	1.47
O14498	ISLR	2.72	3.75	-0.64	-0.18	-0.53	3.24	-0.65	-0.31	-0.88	2.44	-0.72	-1.02	-1.18	0.44
P08254	MMP3	2.72	2.77	-0.66	-0.51	-0.65	1.94	-0.75	-0.56	-0.69	4.22	-0.89	-0.55	-0.87	-0.04
P35247	SFTPD	2.71	6.50	-0.78	-0.36	-0.38	1.62	-0.92	-0.28	-0.50	2.56	-0.87	-1.09	-0.90	1.92
Q969M3	YIPF5	2.68	4.00	-1.24	1.00	-0.89	1.43	-0.49	-0.50	-1.10	2.18	-0.79	-1.00	-1.02	2.43
P09486	SPARC	2.63	4.97	-0.91	-0.60	-0.81	1.45	0.22	-0.87	-0.98	1.79	-0.94	-0.03	-0.99	2.67
P13611	VCAN	2.62	4.27	-0.13	-0.37	-0.91	1.78	-0.40	-0.69	-0.68	0.89	-0.91	-0.88	-0.91	3.22
Q15113	PCOLCE	2.60	5.00	-0.81	-0.41	-0.52	1.30	-0.75	-0.59	-0.17	3.03	-0.82	-0.85	-0.93	1.50
P08572	COL4A2	2.59	5.89	-0.73	-0.37	-0.64	1.55	-0.73	-0.47	-0.58	1.42	-0.81	-0.73	-0.77	2.86
P51884	LUM	2.57	4.10	-0.88	-0.85	-0.08	2.58	0.05	-0.91	-0.68	2.59	-0.83	-0.87	-0.74	0.62
Q13635	PTCH1	2.57	2.81	-0.71	0.81	-1.26	2.40	-1.04	0.47	-0.02	2.13	-2.31	-0.54	-1.18	1.27
Q9HCU0	CD248	2.55	4.92	-0.67	-0.33	-0.63	0.75	-0.71	-0.55	-0.49	2.66	-0.84	-0.69	-0.82	2.33
P05997	COL5A2	2.51	3.95	-0.92	-0.62	-0.77	1.70	-0.99	-0.77	-0.56	2.36	-1.01	-1.05	1.05	1.58
P02458	COL2A1	2.49	4.09	-0.94	0.71	-0.61	1.11	-0.30	-0.57	-0.81	2.39	-1.16	-0.96	-0.97	2.10
Q9BUD6	SPON2	2.43	4.05	-0.80	-0.60	0.33	1.43	-0.69	-0.68	-0.41	3.00	-0.86	-0.87	-0.90	1.04
Q13278	RIG	2.42	2.69	-0.29	NA	0.51	NA	-0.46	NA	-0.35	2.25	-0.54	-1.59	-1.05	1.52
P21246	PTN	2.42	3.61	-1.06	-0.41	-0.58	2.32	-0.70	-0.81	-0.73	2.24	-0.92	0.91	-1.14	0.88

Q9UBX5	FBLN5	2.41	4.09	-0.54	-0.52	-0.58	2.25	-0.56	-0.57	-0.60	2.79	-0.60	-0.67	-0.77	0.39
Q05682	CALD1	2.39	4.19	-1.21	-0.47	-0.25	2.40	-0.27	-0.50	-0.07	0.72	-1.16	-0.70	-0.75	2.26
Q96D15	RCN3	2.38	6.02	-0.71	-0.17	-0.42	1.65	-0.31	-0.69	-0.66	2.42	-0.75	-0.74	-0.90	1.28
Q14162	SCARF1	2.36	2.99	NA	NA	-0.20	2.46	-1.34	NA	-0.59	1.69	-1.02	-1.03	-0.54	0.57
P14210	HGF	2.36	4.70	-0.71	0.07	-0.45	2.09	-0.98	-0.50	-0.15	2.27	-0.75	-0.68	-1.15	0.94
Q15063	POSTN	2.31	2.21	-0.72	-0.64	-0.60	-0.73	0.21	-0.60	-0.73	2.61	-0.72	-0.72	-0.69	3.32
P98095	FBLN2	2.31	3.46	-0.79	-0.53	-0.80	1.14	0.13	-0.50	-0.16	3.20	-0.84	-0.79	-0.91	0.86
Q9Y6C2	EMILIN1	2.28	6.75	-0.46	-0.11	-0.38	1.36	-0.70	-0.45	-0.70	2.02	-0.68	-0.67	-0.99	1.76
Q5JWF8	ACTL10	2.27	3.42	-0.75	0.47	-1.44	1.69	-0.20	0.20	-0.46	2.39	-0.79	-0.87	-1.26	1.01
Q4LDE5	SVEP1	2.25	2.35	-0.77	-0.28	-0.68	3.34	-0.78	0.91	-0.51	1.74	-1.07	-0.92	-0.97	-0.02
P20908	COL5A1	2.24	4.28	-0.79	-0.54	-0.70	1.38	0.62	-0.52	-0.81	1.25	-0.67	-0.84	-0.80	2.42
P09493	TPM1	2.24	3.73	-1.00	0.10	-0.62	2.24	0.02	0.13	-0.28	1.17	-0.68	-1.23	-1.49	1.63
P00736	C1R	2.22	2.24	-0.81	-0.61	-0.86	2.47	1.46	-0.47	-1.20	2.54	-0.72	-0.92	-0.87	-0.01
P08294	SOD3	2.21	2.36	-0.67	0.82	-0.57	3.02	-0.81	-0.71	-0.79	2.25	-0.74	-0.78	-0.73	-0.30
P12111	COL6A3	2.20	2.89	-0.74	0.83	-0.54	0.55	-0.69	-0.70	-0.75	3.08	-0.83	-0.79	-0.74	1.33
P09871	C1S	2.16	2.81	-0.78	-0.59	-0.74	2.54	0.52	-0.35	-0.65	2.34	-0.93	-0.94	-0.41	-0.02
O14495	PPAP2B	2.13	3.22	-1.12	0.73	-0.68	2.02	-0.85	-0.41	-0.74	1.24	-0.99	-1.23	0.51	1.53
Q14112	NID2	2.13	3.54	-0.72	-0.42	-0.68	0.47	0.57	-0.59	-0.77	2.35	-0.76	-0.57	-0.84	1.95
P12109	COL6A1	2.09	2.59	-1.06	1.38	-0.70	1.12	0.24	-0.88	-1.13	2.19	-0.95	-1.11	-0.50	1.40
P24043	LAMA2	2.09	2.59	-0.81	-0.42	-0.66	2.93	0.55	-0.76	0.06	1.69	-0.86	-0.86	-0.94	0.07
P27658	COL8A1	2.08	2.89	-0.96	0.01	-0.10	1.01	-0.75	1.10	-1.02	1.56	-1.14	-0.67	-1.15	2.11
P00746	CFD	2.08	1.37	-0.40	0.39	-1.35	4.39	-0.72	-0.79	-0.84	0.53	1.28	-1.19	-1.06	-0.24
P55083	MFAP4	2.07	3.06	-0.32	-0.77	-0.53	0.47	-0.34	-0.66	-0.36	3.19	-0.65	-0.58	-0.45	0.99

P21810	BGN	2.06	2.56	-0.65	-0.30	-0.51	-0.35	-0.50	-0.52	-0.05	2.06	-0.70	-0.65	-0.73	2.92
O95967	EFEMP2	2.05	6.76	-0.61	0.05	-0.56	1.49	-0.65	-0.59	-0.42	1.87	-0.64	-0.55	-0.65	1.26
Q14766	LTBP1	2.03	2.72	-0.81	-0.29	-0.65	0.65	1.30	-0.62	-1.04	1.93	-0.52	-0.83	-1.11	1.99
P19883	FST	2.01	2.04	-0.99	0.42	-0.68	0.43	-0.55	-0.65	-1.08	2.45	-1.16	1.52	-1.35	1.65
Q15818	NPTX1	1.99	2.12	-0.90	-0.62	-1.02	0.45	-0.13	-0.65	1.66	1.50	-0.88	-1.08	-0.85	2.52
Q8IX30	SCUBE3	1.98	2.45	-0.53	0.03	-0.43	1.41	-0.63	-0.36	-0.51	-0.15	-0.51	-0.63	-0.90	3.21
P02462	COL4A1	1.97	3.52	-0.58	-0.28	-0.50	0.91	-0.38	-0.41	-0.55	0.66	-0.55	-0.58	-0.60	2.87
Q9Y646	CPQ	1.97	3.05	-0.76	1.22	-0.78	1.81	-0.66	-0.51	-0.72	1.80	-0.80	-0.55	-0.88	0.83
O43852	CALU	1.96	5.72	-0.50	0.13	-0.36	1.37	-0.48	-0.39	-0.60	1.64	-1.13	-0.45	-0.64	1.41
Q07954	LRP1	1.96	5.03	-0.69	0.21	-0.55	1.24	-0.74	-0.12	-0.33	1.91	-0.52	-0.82	-0.86	1.27
Q8IUX7	AEBP1	1.92	2.74	-0.47	-0.25	-0.48	0.04	-0.27	-0.36	-0.58	3.02	-0.58	-0.62	-0.72	1.27
O60565	GREM1	1.87	3.45	-0.57	0.10	-0.38	0.17	-0.49	-0.39	-0.50	1.82	-0.64	-0.67	-0.69	2.22
P38570	ITGAE	1.86	2.36	-0.67	0.89	NA	1.01	-0.09	NA	-1.41	1.40	-0.48	-0.97	-1.19	1.51
Q9H8M9	EVA1A	1.85	2.63	0.37	0.75	-0.23	0.99	-0.62	-0.57	-0.40	1.95	-0.68	-1.11	-1.68	1.23
Q9H0X4	ITFG3	1.85	3.00	-0.44	-1.82	-0.46	1.34	0.22	-0.15	-0.47	0.64	-0.21	-0.50	-0.34	2.18
Q8N6Y2	LRRC17	1.85	4.48	-0.33	-0.01	-0.41	0.60	-0.64	-0.39	-0.88	1.66	-0.48	-0.26	-0.77	1.90
P50454	SERPINH1	1.84	4.79	-0.59	-0.39	-0.74	0.95	-0.87	-0.56	-0.26	1.85	-0.73	0.19	-0.20	1.35
Q7Z5L7	PODN	1.84	3.13	-0.44	-0.04	-0.42	2.72	-0.37	-0.51	-0.42	1.13	-0.60	-0.62	-0.72	0.30
Q16363	LAMA4	1.84	2.00	-0.71	-0.34	-0.68	2.05	1.45	-0.81	-1.13	1.98	-0.95	0.03	-1.00	0.10
Q92626	PXDN	1.82	2.44	-0.89	-0.58	-0.88	1.03	0.43	1.23	-0.33	1.61	-1.13	-1.00	-0.96	1.47
Q96AM1	MRGPRF	1.82	2.57	-0.31	-0.11	1.06	1.61	-1.14	-0.60	-0.03	1.52	-1.57	-0.68	-0.70	0.95
P58511	SMIM11	1.81	1.93	-0.47	-0.06	0.93	0.51	-0.60	NA	0.10	2.11	-0.87	-2.00	-0.98	1.33
Q8WUT9	SLC25A43	1.81	3.28	-0.47	-0.06	-0.68	0.33	-0.85	-0.41	-0.04	1.26	-0.45	-0.75	-0.37	2.47

P23142	FBLN1	1.79	2.18	-1.31	-0.94	-0.11	1.67	-0.43	0.55	-0.14	2.24	-1.46	0.33	-0.53	0.12
Q75N90	FBN3	1.79	4.37	-0.27	0.06	-0.65	0.72	-0.14	-0.77	-0.62	1.49	-0.28	-0.39	-0.98	1.82
Q15238	PSG5	1.78	2.10	-0.35	1.38	-0.52	0.62	-0.86	-0.21	-0.58	2.50	-0.79	-0.89	-1.18	0.89
Q9NR99	MXRA5	1.77	3.68	-0.41	-0.22	-0.52	1.68	-0.48	-0.25	-0.42	2.11	-0.48	-0.45	-0.77	0.20
P68133	ACTA1	1.77	3.93	-0.47	-0.28	-0.72	1.62	-0.76	-0.30	-0.38	0.33	-0.44	-0.22	-0.33	2.06
Q96AY3	FKBP10	1.75	2.81	-1.31	0.34	-0.60	1.39	-0.69	0.35	-0.53	1.27	-1.34	-0.59	0.44	1.26
P55287	CDH11	1.74	2.46	-0.74	-0.20	-0.42	1.15	-0.78	-0.50	1.41	0.96	-0.80	-0.93	-0.97	1.81
Q9H4G4	GLIPR2	1.72	3.39	-1.01	0.10	-0.63	1.16	-0.55	0.64	-0.39	1.54	-0.51	-0.35	-1.17	1.17
Q76M96	CCDC80	1.70	3.72	-0.34	-0.11	-0.82	1.01	0.18	0.15	-0.94	0.91	-0.60	-0.63	-0.71	1.91
Q08431	MFGE8	1.70	2.34	-0.42	1.29	-0.84	2.00	-0.80	-0.50	-0.69	1.25	-0.05	-0.92	-0.90	0.59
Q9UHI8	ADAMTS1	1.70	2.35	-1.10	-0.56	-0.76	1.70	0.12	0.12	-0.88	1.02	-0.98	1.19	-0.97	1.10
P55285	CDH6	1.70	3.06	-0.67	-0.09	-0.49	1.53	-0.47	-0.45	-0.59	0.17	-0.69	0.36	-0.72	2.12
P14209	CD99	1.70	2.45	-0.83	1.07	0.19	1.34	-0.78	-1.03	-1.11	1.31	-1.15	-0.01	-0.17	1.17
Q9Y6M5	SLC30A1	1.68	1.83	-0.51	0.67	-1.94	0.24	0.41	-0.12	-0.63	0.94	-0.72	-0.62	-0.32	2.61
Q9BXJ0	C1QTNF5	1.67	3.23	-0.46	0.26	0.10	1.95	-0.39	-0.30	-0.46	1.34	-0.69	-0.65	-1.18	0.47
P17302	GJA1	1.65	3.69	-0.90	-0.30	-0.49	0.95	-0.30	-0.03	-0.29	1.30	-1.00	0.47	-0.86	1.46
P00742	F10	1.65	1.81	-0.76	0.32	1.08	1.30	-1.00	-0.75	0.07	2.36	-0.60	-0.83	-1.23	0.04
P08133	ANXA6	1.64	4.34	-0.42	0.22	-0.90	1.72	-0.16	-0.35	-0.75	0.88	-0.66	-0.19	-0.49	1.10
Q96FE7	PIK3IP1	1.64	1.95	1.19	0.72	-0.95	1.74	-0.53	-0.96	-0.61	1.50	-0.45	-0.91	-1.20	0.46
P41222	PTGDS	1.63	3.38	-0.54	-0.26	-0.19	1.63	-0.55	-0.46	-0.43	1.97	-0.53	-0.49	-0.21	0.07
Q9BRK3	MXRA8	1.62	3.63	-0.67	0.58	-0.58	0.82	-0.53	-0.39	0.09	1.31	-0.73	-0.83	-0.59	1.51
P51911	CNN1	1.61	3.18	-0.80	0.55	-0.06	1.14	-0.90	-0.14	-0.25	0.79	-0.28	-0.68	-1.08	1.70
O76061	STC2	1.60	2.19	0.04	-0.71	-0.40	1.01	0.15	0.93	-0.99	0.95	-1.34	0.03	-1.31	1.63

Q68BL8	OLFML2B	1.60	1.82	-0.56	-0.10	-0.95	1.08	-0.67	1.69	-0.41	2.01	-1.05	-0.79	-0.75	0.50
Q92519	TRIB2	1.59	2.37	-0.95	0.60	NA	1.24	-0.48	-1.15	-0.04	0.80	NA	-0.17	-1.16	1.29
Q8N7U9	LINC00469	1.59	2.71	-0.56	0.22	0.11	0.73	-0.94	0.31	-0.30	1.64	-0.71	-1.52	-0.20	1.20
Q14767	LTBP2	1.59	1.70	-0.65	1.35	-0.89	0.47	0.76	-0.44	-0.86	2.10	-1.13	-0.60	-1.13	1.00
P17936	IGFBP3	1.58	1.40	-0.71	0.15	-0.69	2.22	-0.88	0.14	-1.01	0.55	1.95	-1.02	-1.49	0.79
Q9UM47	NOTCH3	1.55	1.94	-0.71	-0.25	-1.07	0.56	-0.21	-0.46	-0.52	NA	0.11	0.94	-0.36	1.98
P28300	LOX	1.55	4.25	-0.61	-0.07	-0.36	1.01	0.40	-0.42	-0.60	0.93	-0.50	-0.55	-0.76	1.55
Q99715	COL12A1	1.55	1.67	-0.84	0.40	-0.78	1.12	1.65	-0.58	-0.75	1.98	-0.74	-0.90	-0.96	0.39
Q9HCL0	PCDH18	1.54	4.82	-0.34	-0.02	-0.10	0.91	-0.24	-0.39	-0.40	1.69	-0.60	-0.68	-0.70	0.88
Q6UXH8	CCBE1	1.54	3.00	-0.52	-0.24	-0.31	0.45	0.25	-0.22	-0.70	2.17	-0.27	-0.51	-0.96	0.85
P08253	MMP2	1.54	1.41	-0.75	-0.48	-0.67	0.63	2.37	-0.73	-1.05	1.78	-0.74	-0.63	-0.78	1.04
Q6EMK4	VASN	1.52	4.54	-0.21	-0.14	-0.32	0.48	-0.70	-0.35	-0.24	1.36	-0.29	-0.59	-0.59	1.59
Q04941	PLP2	1.51	3.63	-0.59	-0.20	0.45	0.56	-0.26	-0.66	-0.84	1.33	-0.61	-0.33	-0.36	1.51
Q12884	FAP	1.51	3.78	-0.57	0.29	-0.38	0.65	-0.51	-0.51	-0.31	1.15	-0.83	0.11	-0.68	1.59
P25940	COL5A3	1.50	3.46	-0.58	0.39	-0.53	0.67	-0.50	-0.63	-0.43	1.12	0.20	-0.36	-0.94	1.59
P51790	CLCN3	1.49	1.62	-0.91	0.55	1.55	0.96	-0.74	0.17	-1.00	1.44	-0.30	-0.76	-1.45	1.12
Q14691	GINS1	1.49	2.07	-0.84	0.02	-0.14	0.38	-0.80	1.22	-0.29	1.39	-0.62	-1.00	-0.89	1.57
P08648	ITGA5	1.48	4.40	-0.55	0.00	-0.41	0.92	-0.46	-0.20	0.25	0.96	-0.60	-0.74	-0.61	1.44
O00300	TNFRSF11B	1.48	1.80	-0.50	-0.15	-0.52	0.73	-0.72	-0.70	0.81	2.33	0.55	-1.05	-1.04	0.26
Q9Y680	FKBP7	1.46	4.94	-0.60	-0.25	-0.35	0.96	-0.25	0.15	-0.57	1.53	-0.57	-0.32	-0.51	0.81
ENST00000359671_NCI-H23_Mis:G1188V	FN1	1.45	2.15	-0.49	0.59	-0.38	0.20	0.03	-0.62	-0.55	0.63	-0.65	-0.55	-0.63	2.42
P08758	ANXA5	1.45	3.51	-1.11	-0.26	-0.62	1.47	-0.06	-0.08	0.25	0.95	-0.33	-0.23	-0.81	0.84

P05452	CLEC3B	1.44	2.22	-0.38	-0.44	-0.09	0.01	-0.29	-0.53	-0.46	2.62	-0.37	-0.25	-0.45	0.62
P12319	FCER1A	1.43	3.21	-0.19	0.30	NA	0.85	-0.55	0.13	-1.09	1.15	-0.69	-0.34	-0.69	1.12
O95980	RECK	1.43	2.18	-0.70	-0.01	-0.39	1.00	-0.12	0.39	0.28	1.54	-0.50	-0.31	-1.86	0.68
P84157	MXRA7	1.42	2.58	-0.86	0.92	0.18	1.23	-0.27	-0.48	-0.49	0.75	-0.96	-0.65	-0.59	1.21
Q9UKP4	ADAMTS7	1.41	4.97	-0.56	0.33	-0.46	1.10	-0.16	-0.57	-0.45	1.13	-0.32	-0.50	-0.49	0.93
P22352	GPX3	1.40	2.18	-0.20	-0.11	-0.63	2.33	0.44	-0.45	-0.76	0.18	-0.10	-0.61	-0.72	0.65
Q15155	NOMO1	1.40	2.22	-0.75	0.02	-0.70	1.35	0.79	0.45	-0.51	1.24	-1.20	-0.69	-0.55	0.55
ENST00000379086_NCI-H23_Mis:R399H	P4HA2	1.39	2.71	-0.39	0.90	-0.57	0.60	-0.37	-0.48	-0.65	1.56	-0.75	-0.71	-0.12	0.97
P68032	ACTC1	1.39	4.01	-0.52	-0.19	-0.31	1.22	-0.52	-0.24	-0.40	0.28	-0.49	-0.24	-0.22	1.64
Q86SQ3	EMR4P	1.39	4.70	-0.36	-0.22	-0.23	1.45	-0.10	-0.42	-0.10	0.97	-0.90	-0.33	-0.47	0.70
P04921	GYPC	1.38	4.43	-0.47	0.42	-0.41	0.89	-0.45	-0.14	-0.50	0.99	-0.46	-0.44	-0.67	1.23
O43657	TSPAN6	1.38	2.26	-0.01	-0.34	0.09	2.00	-0.72	-0.24	-0.34	0.90	0.28	-0.52	-1.30	0.20
P55789	GFER	1.37	1.55	-0.47	-0.37	-1.11	1.03	-0.08	-0.30	-0.82	1.26	1.84	-0.67	-1.11	0.80
O95450	ADAMTS2	1.36	5.39	-0.33	0.01	-0.32	0.98	-0.38	-0.33	-0.32	0.64	-0.48	-0.42	-0.50	1.46
P04216	THY1	1.36	5.76	-0.33	-0.28	-0.37	1.51	-0.30	-0.37	-0.28	0.64	-0.42	-0.41	-0.28	0.91
P27105	STOM	1.36	2.28	-0.55	0.08	-0.53	2.22	-0.27	-0.60	-0.44	0.58	-0.51	0.43	-0.67	0.25
P48509	CD151	1.36	2.67	0.34	-0.25	-0.34	0.70	0.38	-0.48	-1.06	1.15	-0.21	-1.21	-0.23	1.21
Q8N474	SFRP1	1.34	2.48	-0.58	-0.31	-0.57	1.30	-0.48	-0.49	-0.02	1.50	-0.61	-0.75	0.80	0.21
P05496	ATP5G1	1.34	1.87	-1.23	0.67	0.08	0.94	-0.82	0.54	0.03	1.41	-1.33	-0.69	-0.26	0.67
P05155	SERPING1	1.33	2.03	-0.63	-0.15	-0.65	1.36	-0.63	0.77	0.27	1.63	-0.33	-0.78	-0.86	0.01
Q08397	LOXL1	1.33	1.65	-0.67	1.67	-0.16	0.45	-0.57	-0.38	-0.54	1.03	-0.71	-0.73	-0.90	1.50
P07093	SERPINE2	1.32	1.73	-1.02	0.65	-0.58	0.90	0.78	0.41	-1.34	1.10	-0.51	-0.22	-1.15	0.97

Q99542	MMP19	1.32	1.81	-0.64	1.08	-0.45	0.65	-0.58	-0.67	-0.68	1.82	0.54	-0.74	-0.83	0.51
Q05707	COL14A1	1.31	1.89	-0.54	-0.13	-0.27	2.59	0.06	-0.29	-0.39	0.30	-0.56	-0.34	-0.48	0.06
P21333	FLNA	1.31	2.75	-0.17	0.24	0.12	1.25	-1.43	-0.19	-0.33	0.84	-0.68	0.03	-0.53	0.86
Q10588	BST1	1.30	1.42	1.47	0.53	-1.26	0.18	-0.13	-0.63	-0.75	1.39	-0.45	-0.87	-0.83	1.35
P19876	CXCL3	1.29	2.71	0.02	0.61	0.11	0.74	-0.54	-0.26	-0.98	1.17	-0.88	-0.62	-0.35	0.99
Q86WC4	OSTM1	1.27	1.83	-0.19	0.50	-0.04	1.37	0.72	-0.82	-1.18	1.39	-0.74	-0.64	-0.47	0.10
P23634	ATP2B4	1.27	4.00	-0.62	0.12	-0.46	0.63	-0.17	-0.53	-0.19	0.95	-0.47	-0.67	0.13	1.28
Q96JY6	PDLIM2	1.26	3.87	-0.49	0.11	-0.26	0.95	-0.28	0.20	-0.20	0.82	-0.66	-0.91	-0.36	1.07
Q8IXL7	MSRB3	1.26	2.30	-0.65	0.86	0.19	0.78	-0.61	-0.20	-0.06	1.17	-0.51	-0.77	-1.07	0.88
Q13219	PAPPA	1.25	1.78	-0.37	0.03	-0.34	0.83	0.54	-0.21	-0.54	-0.24	-0.56	-0.65	-0.70	2.22
O60243	HS6ST1	1.25	2.23	-0.48	0.11	-0.51	0.99	-0.61	0.77	-0.44	1.48	-0.78	-0.89	0.03	0.33
Q16610	ECM1	1.24	1.94	-0.73	0.50	-0.56	0.33	-0.35	-0.11	-0.78	2.07	-0.84	-0.06	0.13	0.40
P13674	P4HA1	1.24	4.71	-0.39	0.09	-0.41	0.62	-0.41	-0.28	-0.39	1.15	-0.57	-0.52	0.08	1.03
Q15417	CNN3	1.23	1.54	-1.03	0.75	0.15	1.53	-0.23	0.20	-0.47	0.55	0.44	-1.11	-1.46	0.69
P0DMQ5	INAFM2	1.23	3.20	-0.73	0.22	0.03	0.92	-0.43	-0.02	-0.41	0.35	-0.46	-0.48	-0.49	1.50
Q86Y38	XYLT1	1.22	2.97	-0.19	0.05	-0.35	0.13	-0.61	-0.21	-0.40	1.02	0.06	-0.44	-0.67	1.60
P14543	NID1	1.22	1.42	-0.97	-0.43	0.01	1.13	0.65	-0.70	-1.00	1.26	-0.82	1.34	-0.84	0.36
Q9H9B4	SFXN1	1.22	4.41	-0.52	0.15	-0.41	0.55	-0.51	-0.02	-0.45	0.99	-0.12	-0.45	-0.41	1.20
Q15582	TGFBI	1.22	1.32	-0.03	1.23	-0.68	0.75	0.68	0.24	-1.28	0.79	-1.35	-0.49	-1.07	1.21
Q14108	SCARB2	1.21	2.41	0.21	0.86	-0.37	0.78	-0.63	-0.62	-0.68	1.08	-0.09	-0.65	-0.76	0.87
O95302	FKBP9	1.20	3.75	-0.06	-0.10	-0.20	1.18	-0.42	-0.53	-0.34	1.31	-0.17	-0.54	-0.34	0.21
P51571	SSR4	1.18	3.37	-0.26	0.03	-0.07	1.32	-0.66	-0.36	-0.06	0.21	-0.56	-0.51	-0.22	1.11
O00391	QSOX1	1.17	2.80	0.30	0.08	-0.56	0.56	0.04	-0.36	-0.83	1.46	-0.31	-0.72	-0.29	0.61

P22105	TNXB	1.17	1.79	0.37	0.17	-0.20	2.21	-0.68	-0.31	-0.31	0.19	-0.51	-0.50	-0.65	0.23
Q9H6X2	ANTXR1	1.16	1.34	-1.19	-0.93	-0.51	1.63	0.33	1.24	0.33	0.54	-0.95	-0.63	-0.30	0.43
P04004	VTN	1.15	1.35	-0.22	1.03	-0.09	1.27	-1.08	-0.14	-0.13	0.19	0.51	-1.16	-1.32	1.12
P15954	COX7C	1.14	3.61	0.31	0.13	-0.47	0.52	-0.22	-0.32	-0.50	1.14	-0.51	-0.44	-0.54	0.90
Q9NRN9	METTL5	1.13	3.05	-0.65	0.03	-0.32	0.46	-0.32	-0.11	-0.32	1.53	-0.66	0.18	-0.37	0.56
Q8N6G5	CSGALNACT 2	1.12	2.71	-0.26	0.21	-0.60	1.50	-0.15	0.10	-0.07	0.72	-0.37	-0.61	-0.78	0.31
Q15293	RCN1	1.12	2.02	0.69	0.32	0.02	0.78	-0.55	-0.86	-0.79	1.37	-0.62	-0.53	-0.20	0.38
Q9H4D0	CLSTN2	1.11	2.13	-0.62	0.59	-0.30	0.41	0.12	-0.65	-0.75	0.61	-0.75	0.20	-0.33	1.48
Q8TCT9	HM13	1.10	2.34	-0.47	0.60	-0.17	1.35	-0.65	0.30	-0.32	0.40	-0.60	-0.67	-0.50	0.74
Q9H425	C1orf198	1.10	2.50	-0.41	0.02	0.63	1.31	-0.64	-0.32	-0.61	0.34	-0.13	-0.34	-0.66	0.82
Q96N06	SPATA33	1.09	1.69	-0.41	1.12	0.46	0.70	-0.93	-0.50	-0.26	0.78	-0.44	-0.58	-0.91	0.99
P60033	CD81	1.09	3.93	-0.21	-0.19	0.07	0.87	0.00	-0.16	-0.37	0.96	-0.90	-0.23	-0.46	0.62
P11047	LAMC1	1.09	1.64	-0.42	0.44	-0.98	1.30	0.63	0.47	-0.55	0.98	-0.80	-0.44	-0.79	0.17
Q6UVK1	CSPG4	1.09	1.48	-0.41	0.05	-0.40	0.06	-0.03	-0.48	-0.74	0.96	1.23	-0.68	-0.97	1.42
Q9Y694	SLC22A7	1.08	2.82	-0.49	0.36	0.08	1.15	-0.47	-0.40	-0.40	0.62	0.23	-0.56	-0.79	0.66
Q7Z7G0	ABI3BP	1.08	3.58	-0.28	-0.11	-0.14	0.14	-0.09	-0.16	-0.38	1.23	-0.45	-0.33	-0.50	1.07
Q9UKU6	TRHDE	1.08	2.49	-0.40	0.21	0.29	0.20	-0.46	-0.28	0.03	1.38	-0.68	-0.40	-0.72	0.84
Q32P28	LEPRE1	1.08	2.31	-0.93	0.03	-0.31	0.58	-0.06	0.20	-0.13	1.12	-0.85	-0.77	0.42	0.73
Q9BQ51	PDCD1LG2	1.05	2.09	-0.35	-0.36	-0.52	0.02	0.26	0.54	-0.34	0.95	-0.39	-0.45	-0.75	1.39
Q16527	CSRP2	1.04	2.27	-0.66	0.19	0.30	0.77	0.03	-0.16	0.12	0.39	-0.57	-0.62	-0.97	1.18
P48061	CXCL12	1.02	4.48	-0.51	0.12	-0.39	0.50	0.04	-0.19	-0.39	0.86	-0.27	-0.30	-0.40	0.92
ENST00000397763_CAPAN-1_Mis:L693F	COL6A2	1.01	2.65	-0.37	0.11	-0.61	0.55	0.05	-0.46	-0.17	1.53	-0.36	-0.28	-0.18	0.19

Appendix table 4- CAF depleted proteins from basal state secretome

Accession	Gene	Log_2(CAF/ Cancer)	$-log_{10}$(p value)	H747	LIM2099	SW620	Colorectal CAF	H1792	H2030	H23	Lung CAF	CAPAN1	DANG	MIAPACA2	PSC
P61024	CKS1B	-1.66	3.78	0.95	0.21	0.85	-1.44	-0.32	0.26	1.06	-1.02	0.50	-0.01	0.23	-1.28
O76075	DFFB	-1.48	1.51	0.66	-2.05	1.01	-1.36	0.75	-0.21	0.93	-0.96	0.68	0.53	1.04	-1.01
Q32ZL2	LPPR5	-1.29	1.71	1.35	0.43	0.60	-1.06	-0.15	1.02	0.65	-0.76	0.67	-0.82	-0.86	-1.07
O00555	CACNA1 A	-1.25	2.02	-0.12	-0.61	-0.35	-0.83	0.59	0.39	0.27	-0.97	0.93	0.18	1.52	-1.02
P63173	RPL38	-1.25	1.65	0.52	-1.34	0.44	-1.19	-0.26	0.36	0.82	-0.94	0.78	0.16	1.32	-0.67
Q8NEW0	SLC30A7	-1.24	1.36	0.89	-0.89	0.29	-0.77	-0.30	-0.97	1.06	-0.98	1.54	1.07	0.12	-1.05
Q9H1Z9	TSPAN10	-1.20	2.49	-0.07	-0.13	0.75	-1.06	0.66	-0.42	0.20	-0.88	-0.08	0.66	1.13	-0.76
Q9Y5V0	ZNF706	-1.20	2.03	-0.01	1.01	1.24	-0.81	0.34	-0.36	-0.15	-1.03	0.10	0.95	-0.42	-0.85
Q8N5P1	ZC3H8	-1.20	2.49	0.03	-0.42	1.14	-0.65	0.38	0.21	0.69	-0.89	0.03	0.83	-0.19	-1.16
O95096	NKX2-2	-1.17	3.02	0.60	-0.57	0.80	-0.80	0.54	0.08	0.60	-0.87	0.36	-0.08	0.32	-0.96
Q13185	CBX3	-1.08	2.79	0.62	-0.23	0.93	-0.69	0.42	-0.39	0.06	-0.85	0.57	0.21	0.23	-0.89
P33261	CYP2C19	-1.03	2.85	0.57	0.29	-0.29	-0.58	0.61	-0.04	0.32	-1.19	0.64	0.40	-0.19	-0.54
P18564	ITGB6	-1.03	2.90	0.16	-0.26	0.47	-0.95	0.48	-0.48	0.60	-0.72	0.45	0.54	0.36	-0.64
P09429	HMGB1	-1.01	2.85	0.59	-0.15	0.02	-0.88	0.29	-0.45	0.50	-0.69	0.69	0.55	0.23	-0.70

Appendix table 5- Top protein changes in H1792 with CAF CM

Accession	Gene	Log_2(CAF/Cancer)	$-Log_{10}$(pvalue)
P29034	S100A2	1.69	1.89
P22676	CALB2	1.46	2.62
P00750	PLAT	1.45	2.24
Q96A00	PPP1R14A	1.03	2.41
P42830	CXCL5	-1.02	2.08
P09493	TPM1	-1.04	2.48
Q8TDX6	CSGALNACT1	-1.08	1.87
P08174	CD55	-1.10	2.52
O14684	PTGES	-1.18	2.54
P32320	CDA	-1.19	2.16
Q12805	EFEMP1	-1.59	2.58
Q9UPQ0	LIMCH1	-1.62	2.65
P35354	PTGS2	-1.74	2.52
Q9C002	NMES1	-2.49	2.24

Appendix table 6- Top phosphopeptide changes in H1792 with CAF CM

Accession	Phosphopeptide	Log_2(CAF/Cancer)	$-Log_{10}$(pvalue)
ENST00000503366_LIM2099_Mis:T1603S	ANK3 S914;S917	1.27	1.34
P26641	EEF1G T46	1.22	1.96
P48681	NES S325	1.16	3.40
Q96A00	PPP1R14A S136	1.11	2.88
Q6P1R3	MSANTD2 S24	1.05	2.50

Q9P2Q2	FRMD4A S640	1.05	1.70
Q96CC6	RHBDF1 S76	1.05	2.75
Q68DK2	ZFYVE26 S144	1.04	1.34
ENST00000503366_LIM2099_Mis:T1603S	ANK3 S1454	1.03	1.73
Q9UPT5	EXOC7 S283	1.03	2.75
P48681	NES S680	1.01	1.89
Q6PJG9	LRFN4 S626	-1.02	1.76
O43166	SIPA1L1 S1366	-1.03	3.09
Q8N8S7	ENAH S531	-1.04	2.79
Q07002	CDK18 S14	-1.04	1.49
Q07002	CDK18 S89	-1.05	1.51
P14618	PKM S249	-1.08	1.70
Q9Y4L1	HYOU1 S567	-1.08	2.36
ENST00000361796_NCI-H23_Mis:G830R	CTNND1 T98	-1.15	1.70
Q9UPQ0	LIMCH1 S750	-1.17	2.95
O43516	WIPF1 T398	-1.18	2.68
Q02156	PRKCE T710	-1.19	1.72
Q9UPQ0	LIMCH1 S231	-1.21	1.66
Q9UPQ0	LIMCH1 395-405	-1.24	2.09
Q9UPQ0	LIMCH1 S207	-1.25	1.37
Q8WX93	PALLD 891-910	-1.34	1.33
Q9UPQ0	LIMCH1 S377	-1.35	2.08
O14579	COPE S99	-1.40	1.57

Q9P289	STK26 T327	-1.40	2.24
Q9UPQ0	LIMCH1 S523	-1.47	2.32
Q3KR37	GRAMD1B S550	-1.48	1.38
Q3KR37	GRAMD1B S30	-1.50	2.00
Q9UPQ0	LIMCH1 S192	-1.53	1.93
O60565	GREM1 S77	-1.55	1.43
Q9UPQ0	LIMCH1 T215;S217	-1.60	1.82
Q9UPQ0	LIMCH1 S875	-1.65	1.41
Q9UPQ0	LIMCH1 S973	-1.72	2.77
Q9UPQ0	LIMCH1 S217	-1.75	3.74
Q9UPQ0	LIMCH1 S907	-1.75	1.48
Q9UPQ0	LIMCH1 S471	-1.82	2.23
Q3KR37	GRAMD1B S274	-1.83	1.50
Q9NQ84	GPRC5C T326	-1.86	1.32
Q9UPQ0	LIMCH1 S493	-1.87	2.44
Q9UPQ0	LIMCH1 S303	-2.13	2.54

Appendix table 7- Top protein changes in MIAPACA2 with CAF CM

Accession	Gene	Log_2(CAF/Cancer)	$-Log_{10}$(pvalue)
P02751	FN1	1.77	3.09
Q01650	SLC7A5	1.30	1.93
Q8N9W5	DNAAF3	1.19	2.09

P01011	SERPINA3	1.17	2.62
P16083	NQO2	-1.01	1.76
P40121	CAPG	-1.06	1.64
P32456	GBP2	-1.07	2.26
P06703	S100A6	-1.07	1.64
Q7Z7K2	ZNF467	-1.25	1.52
Q15847	ADIRF	-1.54	1.64

Appendix table 8- Top phosphopeptide changes in MIAPACA2 with CAF CM

Accession	Phosphopeptide	Log_2(CAF/Cancer)	$-Log_{10}$(pvalue)
Q03135	CAV1 S37	1.89	1.33
Q01201	RELB S573	1.40	1.76
Q9Y618	NCOR2 T946;S/T	1.39	1.98
Q6WKZ4	RAB11FIP1 S206	1.38	1.33
Q8NBZ0	INO80E T90	1.37	1.96
Q9H8L6	MMRN2 S327	1.24	1.49
P20749	BCL3 378-388	1.16	1.40
Q7Z591	AKNA S996	1.15	1.52
Q92738	USP6NL 545-571	1.14	1.52
Q9NWH9	SLTM S888	1.08	1.66
O75400	PRPF40A T373	1.08	1.33
Q8WTT2	NOC3L T785	1.05	1.38
Q8NCF5	NFATC2IP S47	1.05	2.12
P0C860	MSL3P1 S292	1.05	1.63
P20749	BCL3 S41	1.02	1.48

Q6P0N0	MIS18BP1 S304	1.02	2.88
Q14847	LASP1 S146	-1.02	1.98
P16157	ANK1 S1666	-1.05	1.32
Q9HBH9	MKNK2 S74	-1.06	2.46
Q9H4A3	WNK1 S2372	-1.07	1.84
P04792	HSPB1 S15	-1.10	2.76
P19838	NFKB1 S893	-1.10	1.63
Q5JSL3	DOCK11 T1352	-1.10	2.45
Q12912	LRMP S131	-1.11	1.78
Q9NV70	EXOC1 S482	-1.12	1.38
Q99698	LYST S2264	-1.16	2.03
P50454	SERPINH1 S141	-1.18	1.45
Q14185	DOCK1 S1756	-1.19	1.33
P62753	RPS6 S236;S240	-1.21	1.86
O43166	SIPA1L1 153-164	-1.22	1.74
Q5T5U3	ARHGAP21 1858-1867	-1.24	1.36
P46937	YAP1 S127;T/S	-1.33	1.78
Q9UHB6	LIMA1 S15	-1.33	1.45
P16157	ANK1 S856	-1.44	2.63
P21291	CSRP1 S192	-1.45	1.32
Q17RY0	CPEB4 94-112	-1.64	2.17

Appendix table 9- Proteome changes with erdafitinib in cancer or CAF CM

Accession	Gene	Significant change in	Log_2(Drug/DMSO) in Cancer CM	$-Log_{10}$(p value) in Cancer CM	Log_2(Drug/DMSO) in CAF CM	$-Log_{10}$(p value) in CAF CM
P04114	APOB	CAF_only	9.72	0.71	13.11	1.60
Q96QD8	SLC38A2	CAF_only	4.96	0.76	7.43	1.36
Q9Y617	PSAT1	CAF_only	4.97	0.43	7.34	1.31
P50281	MMP14	CAF_only	5.93	0.42	7.17	1.88
Q9BT67	NDFIP1	CAF_only	2.09	0.75	7.16	1.65
P58335	ANTXR2	CAF_only	5.92	0.45	7.16	2.48
P07602	PSAP	CAF_only	4.50	0.73	7.14	2.17
P78330	PSPH	CAF_only	5.96	1.07	7.11	1.93
P08243	ASNS	CAF_only	5.40	0.51	7.02	2.03
Q3SY69	ALDH1L2	CAF_only	5.77	0.82	6.98	1.35
Q8WUM9	SLC20A1	CAF_only	3.72	0.67	5.94	2.02
Q92974	ARHGEF2	CAF_only	3.31	0.63	5.60	1.53
Q06481	APLP2	CAF_only	2.68	0.83	5.53	3.40
P23381	WARS	CAF_only	3.86	0.84	5.49	2.02
Q08AF3	SLFN5	CAF_only	3.32	0.63	5.41	2.86
P07204	THBD	Cancer_only	3.55	2.44	5.38	1.03
O75874	IDH1	CAF_only	3.14	0.61	4.96	1.65
Q9BZQ8	FAM129A	CAF_only	2.92	0.51	4.58	1.45
P40261	NNMT	Cancer_and_CAF	3.52	2.05	4.47	2.21
Q9H3M7	TXNIP	Cancer_only	4.57	1.52	4.44	0.98

Q9NR19	ACSS2	CAF_only	2.58	0.47	4.41	1.65
P49588	AARS	CAF_only	2.77	1.19	4.21	1.44
P17174	GOT1	Cancer_and_CAF	2.96	1.48	4.18	1.54
Q16678	CYP1B1	CAF_only	4.98	1.06	4.12	2.65
Q96AQ6	PBXIP1	CAF_only	2.43	1.02	4.10	1.52
Q96EN8	MOCOS	CAF_only	2.61	0.35	3.98	1.69
P07093	SERPINE2	CAF_only	2.56	1.21	3.90	1.72
P0DN79		CAF_only	2.75	0.41	3.89	1.63
Q9NP80	PNPLA8	CAF_only	2.30	0.74	3.85	1.68
P09601	HMOX1	Cancer_only	4.03	1.64	3.66	0.73
Q86YB8	ERO1LB	Cancer_and_CAF	1.84	2.05	3.62	1.57
P07711	CTSL	Cancer_only	2.69	2.02	3.60	0.98
P14324	FDPS	CAF_only	2.86	0.53	3.55	1.38
Q9BRS8	LARP6	Cancer_only	2.60	1.91	3.48	0.97
Q9NPA3	MID1IP1	CAF_only	3.01	0.59	3.47	1.37
Q9NUM4	TMEM106B	CAF_only	0.79	0.19	3.35	1.47
Q8IWU2	LMTK2	Cancer_and_CAF	2.23	1.56	3.30	1.76
P17275	JUNB	Cancer_only	2.71	1.66	3.22	0.81
Q8IXM2	BAP18	Cancer_and_CAF	1.14	1.33	3.22	2.07
Q9UJ72	ANXA10	CAF_only	2.45	0.73	3.18	1.42
P08174	CD55	Cancer_only	2.97	2.30	3.17	0.86
Q9UPY5	SLC7A11	CAF_only	3.34	0.47	3.14	2.72
Q03154	ACY1	Cancer_only	1.79	1.54	3.13	0.96

Q8TD30	GPT2	CAF_only	5.56	0.46	3.11	1.63
O95336	PGLS	CAF_only	2.61	0.54	3.09	1.51
P0CAP1	MYZAP	CAF_only	4.54	1.10	3.09	1.45
P55290	CDH13	CAF_only	1.45	0.40	3.08	1.65
O75368	SH3BGRL	Cancer_only	1.65	1.67	3.08	1.11
Q96IU4	ABHD14B	CAF_only	1.06	0.44	3.04	1.73
P17302	GJA1	CAF_only	2.84	0.39	3.01	2.16
O95865	DDAH2	Cancer_only	2.75	1.38	2.98	0.81
P19971	TYMP	CAF_only	1.53	0.48	2.97	1.44
P17301	ITGA2	Cancer_only	2.23	1.52	2.96	1.17
O15554	KCNN4	CAF_only	1.35	0.52	2.95	2.05
O43776	NARS	Cancer_only	2.33	2.22	2.90	0.88
P40189	IL6ST	CAF_only	1.27	0.51	2.85	1.72
P00568	AK1	Cancer_only	1.58	1.37	2.84	0.69
P23229	ITGA6	Cancer_only	2.23	1.65	2.78	0.78
O15438	ABCC3	Cancer_and_CAF	1.94	1.81	2.76	1.42
Q53T59	HS1BP3	Cancer_only	1.54	1.68	2.75	0.93
P06396	GSN	Cancer_and_CAF	1.44	1.48	2.70	1.53
Q06210	GFPT1	CAF_only	1.29	1.17	2.67	2.03
Q0VDG4	SCRN3	CAF_only	0.87	0.37	2.66	2.72
O14841	OPLAH	Cancer_only	1.77	1.38	2.64	1.09
Q9H2J7	SLC6A15	CAF_only	1.43	0.38	2.61	1.30
Q03426	MVK	CAF_only	1.48	0.70	2.56	1.70

P42330	AKR1C3	CAF_only	2.83	0.63	2.56	1.38
Q9H5V8	CDCP1	CAF_only	1.60	0.68	2.56	1.44
Q9NQ48	LZTFL1	CAF_only	1.11	0.58	2.55	2.31
O75674	TOM1L1	CAF_only	1.16	0.87	2.55	2.59
P54687	BCAT1	CAF_only	1.61	0.35	2.54	1.95
Q08174	PCDH1	Cancer_only	2.13	2.27	2.54	0.79
P09936	UCHL1	CAF_only	1.83	0.68	2.52	2.14
Q9P2T1	GMPR2	Cancer_only	1.27	1.76	2.48	0.83
Q86UB9	TMEM135	CAF_only	1.56	0.64	2.48	1.34
Q01201	RELB	CAF_only	0.49	0.47	2.47	2.35
Q96BW5	PTER	CAF_only	2.88	0.74	2.47	1.45
Q5T6V5	C9orf64	CAF_only	1.66	0.88	2.47	1.50
Q9NRV9	HEBP1	Cancer_only	1.86	1.64	2.46	1.08
Q92844	TANK	CAF_only	1.81	0.84	2.45	2.61
P07339	CTSD	CAF_only	2.18	0.45	2.44	1.75
Q14258	TRIM25	CAF_only	1.73	0.56	2.44	1.55
Q6AI08	HEATR6	Cancer_and_CAF	1.90	2.69	2.39	1.43
Q9GZM7	TINAGL1	CAF_only	2.08	0.56	2.39	1.77
P34897	SHMT2	CAF_only	3.62	0.44	2.36	1.48
Q9BY49	PECR	CAF_only	2.63	0.66	2.35	1.44
Q9Y2Z9	COQ6	CAF_only	1.43	0.56	2.33	1.54
P41252	IARS	Cancer_only	1.81	1.97	2.33	1.29
P07203	GPX1	CAF_only	1.08	0.54	2.32	1.40

Q6ZNW5	GDPGP1	Cancer_only	1.58	1.50	2.30	1.29
Q9HCJ1	ANKH	CAF_only	0.37	0.68	2.29	2.80
P30041	PRDX6	Cancer_only	1.65	1.36	2.29	0.73
Q9H1B7	IRF2BPL	CAF_only	2.35	1.21	2.27	1.65
Q8TCD5	NT5C	CAF_only	1.86	0.65	2.23	2.09
P15121	AKR1B1	CAF_only	1.59	0.71	2.23	1.40
O94929	ABLIM3	CAF_only	1.80	0.56	2.21	1.30
O75689	ADAP1	CAF_only	0.96	0.63	2.20	1.33
O60763	USO1	Cancer_only	1.06	2.26	2.16	0.78
O43592	XPOT	CAF_only	1.26	0.49	2.16	1.47
P52566	ARHGDIB	Cancer_only	1.65	2.04	2.15	1.25
O75976	CPD	CAF_only	3.02	0.34	2.12	1.38
Q8N9F7	GDPD1	Cancer_only	2.70	2.17	2.12	0.93
P15559	NQO1	CAF_only	1.64	0.68	2.11	1.44
P05106	ITGB3	CAF_only	1.09	1.14	2.11	1.45
P52209	PGD	CAF_only	1.93	0.79	2.11	1.62
A7E2V4	ZSWIM8	CAF_only	1.19	0.66	2.09	1.32
O60784	TOM1	CAF_only	1.37	0.57	2.08	1.80
O76054	SEC14L2	CAF_only	0.75	0.69	2.07	1.35
P98171	ARHGAP4	CAF_only	0.82	0.41	2.07	1.34
O14949	UQCRQ	Cancer_and_CAF	1.64	1.72	2.03	1.95
Q9UHW9	SLC12A6	CAF_only	0.73	0.51	2.02	2.25
Q8NCW5	APOA1BP	Cancer_only	1.14	1.52	2.02	0.85

O00469	PLOD2	CAF_only	1.92	0.37	1.99	2.07
O95260	ATE1	Cancer_only	1.63	1.53	1.99	1.05
Q6RW13	AGTRAP	Cancer_only	1.69	1.33	1.98	0.75
Q86WV6	TMEM173	CAF_only	0.57	0.34	1.98	1.76
O14972	DSCR3	CAF_only	0.91	1.22	1.98	1.62
Q7Z4H3	HDDC2	Cancer_only	1.73	1.93	1.97	0.85
Q9BTU6	PI4K2A	CAF_only	0.96	0.49	1.97	1.42
Q16775	HAGH	CAF_only	1.21	0.74	1.97	1.43
O14920	IKBKB	CAF_only	1.65	0.71	1.97	1.31
O60936	NOL3	Cancer_and_CAF	1.04	1.51	1.96	1.40
P36405	ARL3	CAF_only	1.72	0.37	1.95	1.43
P22314	UBA1	Cancer_only	1.23	1.45	1.94	1.04
P31150	GDI1	Cancer_only	1.38	1.47	1.93	0.82
P04150	NR3C1	Cancer_and_CAF	1.63	1.78	1.92	1.38
Q8WVJ2	NUDCD2	CAF_only	1.06	0.28	1.91	1.41
Q9UEW8	STK39	CAF_only	1.27	1.03	1.91	1.52
Q9P2K5	MYEF2	CAF_only	0.69	0.59	1.89	1.77
Q53ET0	CRTC2	Cancer_only	1.40	1.51	1.88	1.08
Q9H993	ARMT1	CAF_only	1.98	0.30	1.87	1.91
O00142	TK2	CAF_only	0.98	1.65	1.87	1.36
Q9BZL4	PPP1R12C	CAF_only	0.65	0.43	1.86	1.42
Q14019	COTL1	CAF_only	1.27	0.43	1.86	1.82
Q66K74	MAP1S	CAF_only	1.02	0.83	1.85	1.46

P26639	TARS	CAF_only	2.24	0.73	1.83	1.42
Q5T013	HYI	CAF_only	0.52	0.37	1.82	2.09
P00390	GSR	CAF_only	0.22	0.04	1.77	1.37
Q13557	CAMK2D	CAF_only	0.87	0.71	1.77	1.64
Q5HYI7	MTX3	CAF_only	1.39	0.57	1.77	1.83
Q01469	FABP5	CAF_only	0.33	0.07	1.76	1.42
Q9NQT8	KIF13B	CAF_only	1.68	0.95	1.76	1.34
Q16881	TXNRD1	CAF_only	0.59	0.22	1.75	1.42
Q9P2J5	LARS	Cancer_and_CAF	1.24	1.37	1.75	1.93
Q16798	ME3	CAF_only	0.70	0.19	1.73	1.59
P50453	SERPINB9	CAF_only	1.29	0.60	1.73	1.54
Q96JB2	COG3	CAF_only	0.87	0.92	1.73	1.35
O15455	TLR3	Cancer_and_CAF	2.09	1.70	1.72	1.51
Q4V328	GRIPAP1	CAF_only	1.29	0.38	1.70	1.58
P08559	PDHA1	CAF_only	1.75	0.54	1.70	1.38
Q9UGI8	TES	CAF_only	0.84	2.45	1.70	1.78
O00625	PIR	Cancer_only	1.88	1.34	1.68	1.17
Q5JPI3	C3orf38	CAF_only	0.15	0.04	1.68	1.32
P80217	IFI35	CAF_only	0.96	0.74	1.67	1.64
P27695	APEX1	Cancer_only	1.36	1.49	1.65	0.53
P11117	ACP2	CAF_only	0.65	0.16	1.64	2.43
Q05209	PTPN12	CAF_only	1.65	0.38	1.64	1.46
P63104	YWHAZ	CAF_only	1.34	0.62	1.64	1.54

Q5ZPR3	CD276	CAF_only	0.25	0.57	1.63	2.50
Q02252	ALDH6A1	CAF_only	0.86	0.27	1.62	1.45
Q86Y82	STX12	CAF_only	0.63	0.69	1.61	1.38
P13798	APEH	CAF_only	1.05	1.15	1.61	2.18
Q86Y79	PTRH1	Cancer_only	1.06	1.52	1.61	0.74
P22059	OSBP	CAF_only	0.51	0.62	1.60	1.78
Q96I15	SCLY	CAF_only	0.87	1.19	1.60	2.90
Q16647	PTGIS	CAF_only	1.13	0.81	1.59	1.81
P09429	HMGB1	CAF_only	1.01	0.90	1.58	1.58
Q9UFW8	CGGBP1	CAF_only	1.66	0.23	1.58	1.34
P05161	ISG15	CAF_only	0.64	0.50	1.58	1.42
Q9BPX5	ARPC5L	Cancer_only	1.65	2.02	1.56	0.52
Q9Y2W6	TDRKH	CAF_only	0.94	0.49	1.55	1.39
P32119	PRDX2	CAF_only	1.91	0.21	1.55	2.22
Q9H9G7	AGO3	CAF_only	0.93	0.06	1.55	1.42
Q709C8	VPS13C	Cancer_and_CAF	1.52	1.39	1.54	1.39
Q96SW2	CRBN	CAF_only	1.40	0.38	1.54	1.41
Q96G03	PGM2	CAF_only	0.99	1.76	1.53	2.04
O60749	SNX2	CAF_only	1.53	0.45	1.53	1.86
P61081	UBE2M	CAF_only	1.64	0.58	1.53	1.33
Q8TEA7	TBCK	Cancer_only	1.59	1.51	1.53	0.73
Q9H939	PSTPIP2	CAF_only	-0.12	0.03	1.52	1.67
Q9UPU7	TBC1D2B	CAF_only	1.37	0.43	1.52	1.57

Q14012	CAMK1	Cancer_only	1.23	1.44	1.52	0.74
Q92888	ARHGEF1	CAF_only	1.47	0.53	1.52	2.14
O95352	ATG7	Cancer_and_CAF	1.14	1.40	1.51	1.82
Q8IXL6	FAM20C	CAF_only	1.04	0.41	1.51	2.23
Q15596	NCOA2	CAF_only	0.64	0.65	1.50	1.39
Q4KWH8	PLCH1	Cancer_only	2.64	1.51	1.50	0.52
Q9BU02	THTPA	CAF_only	-0.05	0.05	1.50	1.48
Q16555	DPYSL2	CAF_only	1.48	0.84	1.50	2.96
P51810	GPR143	CAF_only	-0.82	0.33	1.47	2.26
O00299	CLIC1	CAF_only	1.33	0.73	1.47	1.31
Q9HCE5	METTL14	CAF_only	1.18	0.39	1.47	1.39
Q5VW32	BROX	CAF_only	1.62	0.42	1.45	1.34
Q9NQW7	XPNPEP1	CAF_only	0.75	0.31	1.45	1.77
P49441	INPP1	CAF_only	1.30	0.23	1.45	1.77
P31749	AKT1	CAF_only	0.85	0.29	1.44	1.30
P56192	MARS	CAF_only	1.21	1.12	1.44	1.63
P40855	PEX19	Cancer_and_CAF	1.13	2.08	1.43	1.67
Q01415	GALK2	CAF_only	1.37	0.32	1.43	1.51
Q96B23	C18orf25	CAF_only	1.15	0.38	1.43	1.37
O75431	MTX2	CAF_only	0.76	0.23	1.43	1.39
P55957	BID	CAF_only	0.90	0.46	1.43	2.87
Q8WU79	SMAP2	CAF_only	0.85	0.39	1.43	2.82
P35237	SERPINB6	CAF_only	1.21	0.56	1.41	1.80

P14859	POU2F1	Cancer_only	1.00	1.67	1.41	0.85
O00764	PDXK	CAF_only	1.25	0.76	1.41	2.37
P42574	CASP3	CAF_only	0.03	0.07	1.39	1.67
P07305	H1F0	Cancer_only	2.20	2.35	1.39	1.05
Q15257	PPP2R4	CAF_only	1.39	0.53	1.39	1.46
Q9BYX4	IFIH1	CAF_only	0.68	0.59	1.39	1.87
P30566	ADSL	Cancer_only	1.10	1.32	1.39	0.77
Q13884	SNTB1	CAF_only	1.12	0.59	1.39	1.87
Q15833	STXBP2	CAF_only	1.21	1.09	1.38	1.58
P16152	CBR1	CAF_only	0.80	0.94	1.38	1.42
Q16851	UGP2	CAF_only	1.25	0.83	1.37	1.40
Q9NRY5	FAM114A2	Cancer_and_CAF	1.01	1.32	1.37	1.33
Q96RR4	CAMKK2	CAF_only	0.13	0.11	1.36	1.43
O75164	KDM4A	CAF_only	1.00	0.34	1.36	1.98
Q96K21	ZFYVE19	Cancer_only	1.33	1.38	1.36	0.53
Q52LJ0	FAM98B	CAF_only	0.89	0.66	1.35	2.06
P22102	GART	Cancer_only	1.63	1.47	1.35	0.80
P29218	IMPA1	CAF_only	0.68	0.45	1.35	1.67
Q02218	OGDH	CAF_only	0.77	0.43	1.33	1.98
O00754	MAN2B1	Cancer_only	1.69	1.30	1.33	0.81
P26006	ITGA3	CAF_only	2.13	0.78	1.33	1.32
Q8IXK0	PHC2	CAF_only	1.40	0.48	1.32	1.99
P00367	GLUD1	CAF_only	0.01	0.00	1.31	1.73

Q9BRF8	CPPED1	CAF_only	0.42	0.10	1.30	1.70
P31946	YWHAB	CAF_only	0.73	0.93	1.29	1.51
P17655	CAPN2	CAF_only	1.42	0.32	1.28	1.63
O75197	LRP5	CAF_only	-0.06	0.01	1.27	1.32
Q2M389	KIAA1033	CAF_only	0.82	0.33	1.27	2.24
P04439	HLA-A	CAF_only	-0.03	0.01	1.26	1.69
Q8N122	RPTOR	CAF_only	1.05	0.41	1.26	1.56
O43181	NDUFS4	CAF_only	0.28	0.15	1.25	1.36
P36507	MAP2K2	CAF_only	1.47	0.79	1.25	1.44
P04632	CAPNS1	CAF_only	1.82	0.32	1.24	1.37
Q9NWV4	C1orf123	Cancer_only	1.07	2.33	1.24	0.43
Q6ZVM7	TOM1L2	CAF_only	0.66	0.29	1.24	1.79
Q6UWE0	LRSAM1	CAF_only	0.18	1.81	1.24	1.32
Q9C0I1	MTMR12	Cancer_only	1.06	1.99	1.23	0.54
Q9NTJ4	MAN2C1	CAF_only	1.86	0.87	1.23	1.69
Q13825	AUH	CAF_only	0.00	0.00	1.23	1.43
Q92870	APBB2	CAF_only	0.69	0.27	1.22	1.72
Q92609	TBC1D5	Cancer_only	1.56	1.65	1.22	0.84
Q9NZL9	MAT2B	CAF_only	1.73	0.49	1.21	1.52
P49257	LMAN1	CAF_only	1.65	0.43	1.20	1.35
Q96LT9	RNPC3	CAF_only	-1.12	0.28	1.20	1.34
Q9Y6B7	AP4B1	CAF_only	0.55	0.31	1.20	2.37
Q9UMR5	PPT2	Cancer_only	1.00	1.40	1.20	0.54

O94829	IPO13	CAF_only	0.41	0.43	1.20	1.34
Q9ULQ0	STRIP2	CAF_only	0.24	0.26	1.19	1.84
P53677	AP3M2	CAF_only	0.47	0.65	1.19	1.38
P61981	YWHAG	CAF_only	0.87	0.67	1.19	1.96
Q6P9B6	TLDC1	CAF_only	-0.18	0.54	1.19	1.69
Q99447	PCYT2	CAF_only	0.82	0.34	1.19	1.34
Q9NQ11	ATP13A2	CAF_only	-0.36	0.07	1.17	2.28
P32856	STX2	CAF_only	0.19	0.10	1.17	1.39
P05165	PCCA	CAF_only	0.71	0.49	1.17	1.32
Q13442	PDAP1	CAF_only	0.83	0.12	1.16	1.38
P09972	ALDOC	CAF_only	0.71	0.40	1.16	2.13
O15511	ARPC5	Cancer_only	1.49	1.44	1.16	0.60
P62258	YWHAE	CAF_only	0.50	0.24	1.16	1.39
Q9NV70	EXOC1	Cancer_only	1.28	1.43	1.16	0.77
Q8IXQ5	KLHL7	CAF_only	-0.12	0.03	1.16	1.49
Q15631	TSN	CAF_only	0.68	0.63	1.15	1.49
P23528	CFL1	CAF_only	0.78	0.29	1.15	1.56
Q9Y2H1	STK38L	CAF_only	0.16	0.05	1.15	1.52
P17858	PFKL	CAF_only	0.93	0.51	1.14	1.35
Q96PC5	MIA2	CAF_only	0.63	0.40	1.14	1.84
P42336	PIK3CA	CAF_only	1.50	0.55	1.14	1.31
Q70EL1	USP54	CAF_only	-0.77	0.19	1.14	1.66
P82970	HMGN5	CAF_only	0.66	0.30	1.13	2.01

O95758	PTBP3	CAF_only	-0.19	0.26	1.11	1.79
Q562E7	WDR81	CAF_only	1.01	0.98	1.11	2.12
Q9BRZ2	TRIM56	CAF_only	0.67	0.26	1.09	1.60
Q14914	PTGR1	CAF_only	1.26	0.80	1.09	1.69
Q9GZT8	NIF3L1	CAF_only	0.89	0.26	1.09	1.42
O43768	ENSA	CAF_only	1.18	0.18	1.09	1.31
O43488	AKR7A2	CAF_only	0.90	0.42	1.08	1.34
Q01844	EWSR1	Cancer_only	1.05	1.59	1.08	0.61
Q13576	IQGAP2	CAF_only	0.60	0.81	1.07	1.74
Q53FA7	TP53I3	CAF_only	1.73	0.28	1.07	2.08
O15357	INPPL1	CAF_only	0.80	0.91	1.07	3.17
Q12768	KIAA0196	CAF_only	0.81	0.40	1.06	2.00
Q6PCE3	PGM2L1	CAF_only	0.48	0.31	1.06	1.73
P23634	ATP2B4	CAF_only	0.74	0.26	1.05	1.47
P45974	USP5	CAF_only	1.07	0.24	1.05	1.56
Q13620	CUL4B	CAF_only	1.02	0.71	1.03	2.67
O75396	SEC22B	CAF_only	0.54	0.37	1.01	1.31
Q6PI48	DARS2	Cancer_and_CAF	1.05	1.59	1.01	1.96
Q9Y4L1	HYOU1	CAF_only	0.51	1.20	1.00	1.65
Q13144	EIF2B5	CAF_only	1.08	0.41	1.00	1.61
O43678	NDUFA2	Cancer_only	2.01	1.81	0.98	0.56
Q9NPR2	SEMA4B	Cancer_only	1.53	2.41	0.72	0.31
O00767	SCD	Cancer_only	1.41	1.31	0.56	0.82

P54619	PRKAG1	Cancer_only	1.19	1.31	0.45	0.38
P78357	CNTNAP1	Cancer_only	1.05	1.35	0.43	0.30
P50750	CDK9	Cancer_only	1.43	1.30	0.34	0.18
Q16527	CSRP2	Cancer_only	-1.09	1.37	0.22	0.15
O43760	SYNGR2	Cancer_only	2.34	1.67	0.02	0.01
Q9Y5W8	SNX13	Cancer_only	-1.04	2.44	-0.04	0.05
Q96NM4	TOX2	Cancer_only	2.33	1.58	-0.12	0.10
P58397	ADAMTS12	Cancer_only	-1.15	1.51	-0.19	0.21
P62633	CNBP	Cancer_only	-1.63	2.15	-0.43	0.14
Q86XK2	FBXO11	Cancer_only	-1.08	1.53	-0.54	0.37
Q9Y535	POLR3H	Cancer_only	-1.19	1.48	-0.60	2.18
P17028	ZNF24	Cancer_only	-1.01	1.38	-0.70	1.54
Q9NXU5	ARL15	Cancer_only	-1.82	1.40	-0.70	0.16
Q9NX58	LYAR	Cancer_only	-1.22	1.40	-0.80	2.78
Q13123	IK	Cancer_only	-1.05	1.50	-0.89	1.16
P38935	IGHMBP2	Cancer_only	-1.35	1.44	-0.91	0.56
Q3B820	FAM161A	Cancer_only	-1.14	1.44	-0.97	0.66
Q96JC9	EAF1	Cancer_only	-1.89	1.72	-0.99	1.52
Q2TAY7	SMU1	CAF_only	-0.89	0.96	-1.02	2.84
Q8TAD8	SNIP1	CAF_only	-0.83	0.30	-1.02	1.36
O75694	NUP155	CAF_only	-0.35	0.24	-1.02	3.78
P55042	RRAD	CAF_only	-0.85	1.19	-1.02	1.46
Q70UQ0	IKBIP	CAF_only	-0.40	0.38	-1.03	3.03

Q8N201	INTS1	CAF_only	-0.17	0.55	-1.03	1.44
Q9BRJ6	C7orf50	CAF_only	-0.91	0.26	-1.04	1.52
Q96S59	RANBP9	CAF_only	-0.48	1.37	-1.04	1.73
Q9UBP9	GULP1	CAF_only	-0.55	0.16	-1.04	2.00
O76031	CLPX	CAF_only	-0.95	0.36	-1.05	1.32
Q9Y324	FCF1	CAF_only	-0.68	0.49	-1.05	1.52
P51148	RAB5C	CAF_only	-1.08	0.48	-1.07	1.46
Q8WV22	NSMCE1	CAF_only	-0.96	0.30	-1.09	1.37
Q9UQE7	SMC3	CAF_only	-0.62	0.41	-1.10	2.14
O14657	TOR1B	CAF_only	-0.55	0.37	-1.11	1.56
Q9UKI8	TLK1	Cancer_only	-1.45	2.12	-1.11	0.92
Q15061	WDR43	CAF_only	-0.70	2.69	-1.12	1.59
O43795	MYO1B	CAF_only	-0.76	0.45	-1.12	1.50
Q9BUQ8	DDX23	CAF_only	-0.75	0.51	-1.12	1.47
Q9BVG9	PTDSS2	CAF_only	-0.65	0.23	-1.13	1.31
Q9GZU8	FAM192A	CAF_only	0.23	0.05	-1.13	1.80
P40222	TXLNA	CAF_only	-0.37	0.24	-1.14	1.62
Q96A57	TMEM230	CAF_only	1.18	0.22	-1.15	1.95
O00571	DDX3X	CAF_only	-0.71	0.19	-1.16	1.34
Q8TCT9	HM13	Cancer_only	-1.33	2.14	-1.17	0.69
Q96C01	FAM136A	CAF_only	0.35	0.07	-1.17	1.44
P56545	CTBP2	CAF_only	-0.59	0.31	-1.17	1.39
P51114	FXR1	CAF_only	-0.74	1.24	-1.17	2.30

Q03001	DST	CAF_only	-1.26	0.37	-1.18	1.82
O60341	KDM1A	CAF_only	-0.46	0.25	-1.18	1.46
P61964	WDR5	Cancer_and_CAF	-1.09	1.48	-1.19	1.50
Q13243	SRSF5	CAF_only	-0.99	0.51	-1.19	1.55
P41208	CETN2	CAF_only	-0.98	0.40	-1.20	1.69
Q8IWB9	TEX2	CAF_only	-0.47	0.58	-1.20	1.31
Q96RP9	GFM1	CAF_only	-0.56	0.41	-1.22	1.40
Q9BUI4	POLR3C	CAF_only	-0.41	0.30	-1.22	2.25
Q14683	SMC1A	CAF_only	-0.75	0.52	-1.22	1.56
Q9UBQ5	EIF3K	CAF_only	-0.79	1.06	-1.23	1.32
Q7Z2W4	ZC3HAV1	CAF_only	-0.45	0.44	-1.23	1.37
A6H8Y1	BDP1	CAF_only	-1.84	0.43	-1.23	1.53
P78559	MAP1A	CAF_only	-0.53	0.10	-1.24	1.39
Q0P6H9	TMEM62	CAF_only	-1.21	0.19	-1.24	1.32
Q29RF7	PDS5A	CAF_only	-0.85	0.95	-1.25	1.55
Q9NYJ8	TAB2	CAF_only	0.08	0.04	-1.25	1.79
P09001	MRPL3	CAF_only	-0.51	0.30	-1.25	2.08
Q9UQR1	ZNF148	CAF_only	-0.37	0.44	-1.27	1.57
P78549	NTHL1	CAF_only	-1.38	0.39	-1.27	1.31
Q96FZ2	HMCES	CAF_only	-0.13	0.04	-1.27	1.94
Q8N3R9	MPP5	CAF_only	-1.54	0.64	-1.28	1.89
Q5JSZ5	PRRC2B	CAF_only	-0.75	0.20	-1.28	1.56
O00566	MPHOSPH10	CAF_only	-0.54	0.73	-1.28	1.89

Q96C24	SYTL4	Cancer_only	-1.40	1.53	-1.29	1.01
Q16643	DBN1	CAF_only	-1.44	0.36	-1.30	1.51
Q15393	SF3B3	CAF_only	-0.45	0.25	-1.30	1.48
Q9HCD5	NCOA5	CAF_only	-0.55	0.66	-1.32	1.54
P56556	NDUFA6	Cancer_only	-1.06	2.83	-1.32	0.55
P61313	RPL15	CAF_only	-0.51	0.29	-1.32	1.45
P17480	UBTF	CAF_only	-0.72	0.74	-1.32	1.52
O95232	LUC7L3	CAF_only	-0.30	0.83	-1.32	1.86
Q6P4I2	WDR73	CAF_only	-0.44	0.09	-1.32	1.32
O43739	CYTH3	CAF_only	-1.17	0.31	-1.33	2.05
Q9H089	LSG1	CAF_only	-0.77	1.08	-1.34	1.38
Q9H7F0	ATP13A3	CAF_only	-0.69	0.41	-1.35	1.59
P37275	ZEB1	CAF_only	-2.57	0.49	-1.35	1.63
P78356	PIP4K2B	CAF_only	-0.58	0.90	-1.35	1.72
O75691	UTP20	CAF_only	-1.30	0.29	-1.38	1.78
O95429	BAG4	CAF_only	-0.20	0.07	-1.38	1.48
O43896	KIF1C	CAF_only	-0.31	0.06	-1.38	1.95
Q14498	RBM39	CAF_only	-0.76	0.66	-1.39	1.51
Q86U38	NOP9	Cancer_only	-1.16	1.66	-1.39	1.05
O60488	ACSL4	CAF_only	-0.71	0.50	-1.39	1.32
Q9UGY1	NOL12	CAF_only	-0.33	0.30	-1.39	1.38
Q9BVI4	NOC4L	CAF_only	-1.01	1.20	-1.39	1.34
O43293	DAPK3	Cancer_only	-1.23	1.32	-1.39	0.44

Q9P219	CCDC88C	CAF_only	-0.92	0.29	-1.41	1.47
P42704	LRPPRC	CAF_only	-0.62	0.40	-1.42	1.72
Q9Y6I4	USP3	CAF_only	-0.54	0.56	-1.43	1.60
O75676	RPS6KA4	CAF_only	-0.50	0.26	-1.43	1.44
Q96EL2	MRPS24	CAF_only	-0.77	0.22	-1.44	2.12
Q9BY77	POLDIP3	CAF_only	-0.85	0.57	-1.44	1.53
Q9Y679	AUP1	CAF_only	-1.08	0.59	-1.44	1.36
Q14191	WRN	CAF_only	-0.47	0.21	-1.45	2.30
Q8TF01	PNISR	CAF_only	-0.88	0.59	-1.45	1.36
Q9BQ67	GRWD1	CAF_only	-1.02	0.56	-1.45	1.31
Q9Y219	JAG2	CAF_only	-1.99	0.30	-1.46	1.30
Q96RE7	NACC1	CAF_only	-1.17	0.53	-1.46	1.40
O94906	PRPF6	CAF_only	-0.61	1.96	-1.48	1.93
Q6UXN9	WDR82	CAF_only	-0.62	0.85	-1.48	1.32
Q13257	MAD2L1	CAF_only	-1.21	0.28	-1.48	1.65
O15269	SPTLC1	CAF_only	-1.06	0.69	-1.49	1.36
P30050	RPL12	CAF_only	-0.69	0.48	-1.50	1.33
Q7KZ85	SUPT6H	CAF_only	-0.13	0.07	-1.50	2.02
Q8TED0	UTP15	Cancer_only	-1.09	1.54	-1.51	0.74
O15213	WDR46	CAF_only	-0.80	0.28	-1.53	1.35
Q9H3U1	UNC45A	CAF_only	-0.75	0.70	-1.54	3.41
P62851	RPS25	CAF_only	-0.09	0.01	-1.54	1.39
Q96SB4	SRPK1	CAF_only	-0.50	0.41	-1.54	1.43

O60287	URB1	CAF_only	-1.15	0.92	-1.56	1.71
Q14008	CKAP5	CAF_only	-0.80	0.41	-1.56	1.66
Q96KR1	ZFR	CAF_only	-0.32	0.62	-1.57	2.34
Q53GS9	USP39	Cancer_only	-1.33	1.86	-1.58	1.25
P33991	MCM4	Cancer_only	-1.06	2.06	-1.59	0.79
Q96S66	CLCC1	CAF_only	-1.18	0.41	-1.61	1.69
Q96EZ8	MCRS1	CAF_only	-1.13	0.22	-1.61	2.02
ENST00000369967_NCI-H1792_Mis:R437Q	ZGPAT	CAF_only	-1.68	0.82	-1.61	1.30
Q8NFH4	NUP37	CAF_only	-0.52	0.48	-1.61	1.99
Q15047	SETDB1	CAF_only	-0.80	1.45	-1.62	1.34
Q9BVJ6	UTP14A	CAF_only	-1.58	0.25	-1.63	1.33
Q13185	CBX3	CAF_only	-1.33	1.26	-1.65	1.54
O75410	TACC1	CAF_only	-0.97	2.20	-1.65	1.54
Q9H0U9	TSPYL1	CAF_only	-0.91	0.34	-1.66	2.41
P31321	PRKAR1B	CAF_only	-0.41	0.16	-1.66	1.36
Q96KQ7	EHMT2	Cancer_only	-1.94	1.64	-1.67	1.13
Q13416	ORC2	CAF_only	-0.81	0.29	-1.67	1.47
Q9Y4C2	TCAF1	CAF_only	0.41	0.16	-1.68	2.54
Q99717	SMAD5	CAF_only	-0.07	0.18	-1.68	1.37
O60462	NRP2	Cancer_and_CAF	-2.67	3.23	-1.69	1.32
Q9H0R6	QRSL1	CAF_only	-0.65	0.23	-1.69	1.80
P16403	HIST1H1C	Cancer_only	-1.08	1.61	-1.70	0.45

Q9NRN9	METTL5	CAF_only	-0.43	0.13	-1.70	1.68
O95714	HERC2	CAF_only	-0.90	0.55	-1.70	1.72
Q8TDD1	DDX54	CAF_only	-0.34	1.13	-1.71	1.36
Q86U28	ISCA2	CAF_only	-0.46	0.05	-1.72	1.33
O94925	GLS	Cancer_only	-1.77	1.60	-1.72	0.61
Q8WU90	ZC3H15	CAF_only	-0.41	0.14	-1.72	2.59
O75127	PTCD1	CAF_only	-1.60	0.64	-1.73	1.89
Q9ULD4	BRPF3	Cancer_and_CAF	-1.07	2.37	-1.73	1.57
Q96I25	RBM17	CAF_only	-0.22	0.35	-1.74	1.78
Q8N5P1	ZC3H8	Cancer_only	-1.33	1.81	-1.74	1.12
P16401	HIST1H1B	CAF_only	-0.97	0.19	-1.74	1.67
Q6RFH5	WDR74	CAF_only	-1.43	0.31	-1.75	1.99
Q9H6R4	NOL6	Cancer_only	-1.44	1.47	-1.76	1.28
Q13823	GNL2	CAF_only	-0.39	0.12	-1.76	1.86
Q9BYG3	NIFK	CAF_only	-0.05	0.12	-1.77	1.89
Q8N5Z5	KCTD17	Cancer_only	-1.42	1.65	-1.79	0.55
P33992	MCM5	CAF_only	-0.85	0.38	-1.79	1.68
P06493	CDK1	CAF_only	-0.78	0.10	-1.82	1.69
O94887	FARP2	CAF_only	-0.91	0.18	-1.84	2.36
Q9HCS7	XAB2	CAF_only	-1.21	1.06	-1.85	1.34
Q8N3V7	SYNPO	CAF_only	-0.97	0.56	-1.85	1.35
Q9UGJ1	TUBGCP4	CAF_only	-0.56	0.89	-1.86	1.54
Q9ULD2	MTUS1	CAF_only	-1.14	0.73	-1.86	2.21

Q9NVF7	FBXO28	Cancer_only	-1.56	1.60	-1.86	0.93
Q14938	NFIX	CAF_only	-1.52	0.75	-1.86	2.13
P28340	POLD1	CAF_only	-0.72	0.28	-1.87	1.34
Q9ULF5	SLC39A10	Cancer_and_CAF	-2.25	1.59	-1.89	1.32
Q6P1J9	CDC73	CAF_only	-1.34	0.92	-1.89	1.34
A5PLL7	TMEM189	Cancer_only	-1.97	1.67	-1.93	0.93
Q3KQU3	MAP7D1	Cancer_only	-1.27	1.33	-1.94	0.56
O14966	RAB29	Cancer_only	-1.35	1.96	-1.94	0.40
Q9Y2H5	PLEKHA6	CAF_only	-1.52	0.31	-1.95	1.73
Q9ULR0	ISY1	CAF_only	-1.22	0.66	-1.97	2.05
Q6IQ23	PLEKHA7	CAF_only	-1.27	0.75	-1.97	1.71
O43709	WBSCR22	CAF_only	-1.09	0.39	-1.98	1.71
Q969R5	L3MBTL2	CAF_only	-1.88	0.46	-1.98	1.95
Q96SZ6	CDK5RAP1	CAF_only	-1.48	0.93	-1.98	1.55
Q9Y3A4	RRP7A	CAF_only	-1.47	0.68	-1.99	1.74
Q9P275	USP36	CAF_only	-1.04	0.51	-1.99	1.34
Q76FK4	NOL8	CAF_only	-1.04	1.03	-1.99	1.73
Q9NY93	DDX56	CAF_only	-0.99	0.55	-2.00	1.54
Q9BV36	MLPH	CAF_only	-1.32	0.35	-2.01	1.82
Q99959	PKP2	CAF_only	-2.05	0.66	-2.01	1.31
Q96I51	WBSCR16	CAF_only	-1.22	0.57	-2.02	1.54
Q15326	ZMYND11	Cancer_and_CAF	-1.64	1.88	-2.02	2.33
Q9NV06	DCAF13	CAF_only	-0.74	0.93	-2.03	1.56

O75534	CSDE1	Cancer_only	-1.08	2.65	-2.03	0.60
Q68D10	SPTY2D1	CAF_only	-1.20	0.56	-2.03	1.61
Q2KHR3	QSER1	CAF_only	-1.73	0.93	-2.04	1.36
Q01196	RUNX1	Cancer_only	-2.04	3.73	-2.05	0.68
Q7Z417	NUFIP2	CAF_only	-0.98	0.78	-2.07	2.19
P48681	NES	CAF_only	-1.04	0.27	-2.08	1.35
Q9NW13	RBM28	CAF_only	-1.12	0.59	-2.09	1.84
Q9H6E5	TUT1	CAF_only	-0.86	0.34	-2.09	1.41
P42285	SKIV2L2	CAF_only	-1.13	0.92	-2.10	1.38
Q9NSI2	FAM207A	CAF_only	-1.06	0.44	-2.11	1.35
Q5T3I0	GPATCH4	CAF_only	-0.68	0.16	-2.11	2.04
Q5T5X7	BEND3	Cancer_only	-1.65	1.33	-2.12	1.30
Q9Y5J1	UTP18	CAF_only	-1.38	0.35	-2.13	1.59
Q9BZE4	GTPBP4	CAF_only	-1.58	0.37	-2.14	2.38
O96005	CLPTM1	Cancer_only	-2.07	1.62	-2.15	1.17
O75530	EED	CAF_only	-0.72	0.51	-2.17	2.31
Q9NZ45	CISD1	CAF_only	-0.93	0.51	-2.17	1.46
P52701	MSH6	CAF_only	-1.28	0.68	-2.21	2.22
Q6PJG6	BRAT1	CAF_only	-0.21	0.03	-2.22	2.07
Q9HBM1	SPC25	CAF_only	-0.90	0.36	-2.24	1.45
Q6PCB5	RSBN1L	CAF_only	-1.29	0.42	-2.24	1.62
Q14680	MELK	CAF_only	-0.98	0.23	-2.25	1.62
Q14678	KANK1	Cancer_and_CAF	-1.42	1.41	-2.26	1.46

Q9UL63	MKLN1	CAF_only	-0.78	1.55	-2.27	1.41
Q8IYH5	ZZZ3	CAF_only	-1.49	0.49	-2.28	1.45
Q9BVP2	GNL3	CAF_only	-1.51	0.15	-2.28	1.61
Q15397	KIAA0020	CAF_only	-1.72	0.26	-2.30	1.47
O95140	MFN2	Cancer_only	-1.60	1.51	-2.30	0.81
Q5SNT2	TMEM201	CAF_only	-1.10	0.48	-2.31	1.43
Q9BWT6	MND1	CAF_only	-2.19	0.53	-2.32	1.34
Q6NUN9	ZNF746	CAF_only	-0.74	0.28	-2.32	2.06
P14921	ETS1	CAF_only	-0.96	0.22	-2.34	1.36
Q9HBU6	ETNK1	CAF_only	-0.02	0.01	-2.34	1.56
Q9Y4B5	MTCL1	CAF_only	-1.59	0.41	-2.35	1.67
Q9NZ63	C9orf78	CAF_only	-1.62	0.54	-2.35	1.31
Q8IZT6	ASPM	Cancer_only	-2.19	2.37	-2.36	0.60
Q71RC2	LARP4	CAF_only	-0.95	0.25	-2.37	2.81
O43502	RAD51C	CAF_only	-1.22	0.43	-2.37	1.72
P09486	SPARC	CAF_only	-1.61	0.38	-2.38	1.48
Q8NCD3	HJURP	Cancer_only	-1.03	1.62	-2.39	1.18
Q8TCG1	KIAA1524	CAF_only	-0.38	0.08	-2.39	2.53
P11802	CDK4	CAF_only	-1.49	1.04	-2.39	2.35
Q58EX7	PLEKHG4	CAF_only	-1.36	0.94	-2.40	2.44
Q12849	GRSF1	CAF_only	-0.77	0.32	-2.40	1.34
Q5EB52	MEST	Cancer_only	-2.29	1.60	-2.42	1.09
O60306	AQR	Cancer_and_CAF	-1.55	2.22	-2.43	1.84

Q9Y4C8	RBM19	CAF_only	-1.73	0.75	-2.44	1.74
Q9BQ39	DDX50	Cancer_only	-1.20	2.88	-2.46	0.64
Q9NRB3	CHST12	Cancer_only	-2.19	1.61	-2.46	0.90
A3KN83	SBNO1	CAF_only	-0.81	0.14	-2.46	1.79
Q15910	EZH2	CAF_only	-2.13	0.66	-2.48	1.42
Q63ZY3	KANK2	Cancer_only	-2.27	1.44	-2.49	0.56
O14578	CIT	CAF_only	-1.87	0.91	-2.49	1.33
Q9HCL2	GPAM	CAF_only	-1.58	0.63	-2.50	1.75
P13051	UNG	CAF_only	-0.92	0.65	-2.51	1.79
Q15398	DLGAP5	CAF_only	-1.75	0.60	-2.53	1.35
O95905	ECD	Cancer_only	-1.88	1.49	-2.54	0.66
P49643	PRIM2	CAF_only	-1.45	0.92	-2.55	1.70
Q9P0V3	SH3BP4	Cancer_and_CAF	-2.67	1.44	-2.55	1.30
Q9UG63	ABCF2	CAF_only	-1.55	0.94	-2.60	1.45
P48651	PTDSS1	Cancer_only	-1.78	1.32	-2.64	0.69
Q9UHB6	LIMA1	CAF_only	-2.36	0.62	-2.64	1.77
Q8IVL5	LEPREL1	CAF_only	-1.73	0.64	-2.69	1.56
Q9NP72	RAB18	CAF_only	-2.78	0.88	-2.69	1.31
Q02241	KIF23	CAF_only	-1.71	0.39	-2.70	1.80
Q9H0S4	DDX47	CAF_only	-2.20	0.55	-2.71	1.77
Q8NBT2	SPC24	CAF_only	-1.88	0.97	-2.73	1.88
P33981	TTK	CAF_only	-1.82	1.02	-2.74	1.51
Q13895	BYSL	CAF_only	-1.12	0.73	-2.75	2.23

P28749	RBL1	Cancer_only	-1.36	1.45	-2.82	0.90
P01137	TGFB1	Cancer_only	-2.45	1.33	-2.85	0.90
Q86XI2	NCAPG2	CAF_only	-1.87	0.90	-2.89	1.81
Q99661	KIF2C	CAF_only	-2.43	0.66	-2.89	2.19
Q9H2J4	PDCL3	CAF_only	-0.33	0.03	-2.91	2.02
Q8NDV7	TNRC6A	CAF_only	-2.20	1.18	-2.92	1.37
Q8IX90	SKA3	CAF_only	-1.94	0.67	-2.95	1.72
Q86TG7	PEG10	Cancer_and_CAF	-2.80	1.75	-2.96	1.56
Q5VV42	CDKAL1	CAF_only	-1.40	0.45	-2.98	1.45
Q9NRL2	BAZ1A	CAF_only	-2.54	0.58	-2.98	1.67
Q8WYQ5	DGCR8	CAF_only	-1.66	0.38	-3.01	1.86
Q8IUF8	MINA	Cancer_and_CAF	-1.51	2.56	-3.11	1.34
Q9NRP4	SDHAF3	Cancer_and_CAF	-2.09	1.93	-3.20	1.48
Q9GZT3	SLIRP	Cancer_only	-1.90	1.70	-3.21	0.69
O14965	AURKA	CAF_only	-2.38	0.67	-3.21	2.33
Q8NG31	CASC5	CAF_only	-1.53	0.43	-3.22	1.51
Q14444	CAPRIN1	Cancer_only	-2.34	1.48	-3.25	1.24
P41440	SLC19A1	CAF_only	-1.39	0.54	-3.28	1.56
Q9UK76	HN1	CAF_only	-0.34	0.05	-3.28	1.50
Q96HE9	PRR11	Cancer_only	-3.25	1.72	-3.30	0.93
Q9BX63	BRIP1	Cancer_only	-1.27	1.43	-3.32	0.88
Q9H9L3	ISG20L2	Cancer_only	-1.41	1.66	-3.34	0.59
Q9Y320	TMX2	CAF_only	-2.91	0.99	-3.42	1.31

Q16342	PDCD2	CAF_only	0.03	0.00	-3.60	1.66
Q96GD4	AURKB	CAF_only	-2.69	0.76	-3.61	1.35
Q96KB5	PBK	CAF_only	-2.84	0.95	-3.61	1.41
Q96Q89	KIF20B	CAF_only	-3.03	1.22	-3.61	1.85
Q9UNN8	PROCR	CAF_only	-2.36	0.57	-3.70	2.36
Q8N128	FAM177A1	Cancer_only	-2.56	1.64	-3.73	1.27
Q9HBI1	PARVB	CAF_only	-1.90	0.56	-3.73	1.50
Q9Y6A5	TACC3	CAF_only	-2.82	0.29	-3.78	2.12
Q13835	PKP1	CAF_only	-1.70	0.36	-3.86	2.14
P30530	AXL	CAF_only	-3.26	0.89	-3.86	1.42
P56282	POLE2	CAF_only	-2.23	1.17	-3.87	1.31
Q96GA3	LTV1	CAF_only	-0.64	0.21	-3.87	1.52
Q9NXV2	KCTD5	CAF_only	-2.38	0.42	-3.88	1.43
Q00534	CDK6	CAF_only	-1.31	0.15	-3.95	1.63
Q9H173	SIL1	CAF_only	-3.17	0.52	-3.95	2.10
Q07864	POLE	CAF_only	-1.95	0.80	-3.96	2.77
Q9BXS6	NUSAP1	CAF_only	-4.21	0.68	-4.05	1.44
Q9UBU8	MORF4L1	CAF_only	-1.83	0.56	-4.09	1.52
Q13111	CHAF1A	Cancer_and_CAF	-2.53	1.95	-4.13	1.54
O95239	KIF4A	CAF_only	-1.96	0.79	-4.20	1.87
Q9NPD8	UBE2T	Cancer_only	-3.79	1.31	-4.20	0.83
P09493	TPM1	Cancer_only	-3.71	1.41	-4.21	1.05
Q9BXK1	KLF16	Cancer_and_CAF	-2.66	1.53	-4.22	1.31

P31689	DNAJA1	CAF_only	-1.12	0.12	-4.23	1.60
Q96R06	SPAG5	CAF_only	-2.57	0.69	-4.25	1.30
P56945	BCAR1	Cancer_and_CAF	-2.77	2.59	-4.26	1.42
Q9H6F5	CCDC86	Cancer_only	-1.48	2.58	-4.26	0.99
P02452	COL1A1	CAF_only	-2.58	0.97	-4.30	1.96
Q99618	CDCA3	CAF_only	-3.37	0.60	-4.66	1.63
P52292	KPNA2	CAF_only	-2.65	0.36	-4.69	2.21
P13726	F3	CAF_only	-2.24	0.47	-4.74	1.68
Q9Y4K0	LOXL2	CAF_only	-4.54	0.39	-4.77	1.92
Q96QE3	ATAD5	CAF_only	-3.39	0.49	-4.78	1.44
Q99640	PKMYT1	Cancer_only	-2.62	1.52	-5.00	0.85
Q9UBT7	CTNNAL1	CAF_only	-3.41	0.67	-5.02	2.08
Q96EA4	SPDL1	CAF_only	-3.17	0.68	-5.05	1.79
Q9BZX2	UCK2	CAF_only	-2.91	0.46	-5.12	1.43
Q9Y448	KNSTRN	CAF_only	-2.40	0.31	-5.23	1.37
Q16763	UBE2S	CAF_only	-2.55	0.27	-5.26	1.95
P04818	TYMS	CAF_only	-3.92	0.48	-5.33	1.77
O95235	KIF20A	CAF_only	-3.88	0.95	-5.69	1.50
O15392	BIRC5	Cancer_only	-4.47	1.31	-6.10	1.28
P23921	RRM1	CAF_only	-2.58	0.27	-6.44	1.64
Q96T88	UHRF1	CAF_only	-2.13	0.18	-7.35	1.77
O00762	UBE2C	Cancer_and_CAF	-4.42	1.45	-7.62	1.74
Q15004	KIAA0101	CAF_only	-4.00	0.28	-9.01	1.61

Appendix table 10- Phosphoproteome changes with erdafitinib in cancer or CAF CM

Accession	Phosphoprotein	Significant change in	Log_2(Drug/DMSO) in Cancer CM	$-Log_{10}$(p value) in Cancer CM	Log_2(Drug/DMSO) in CAF CM	$-Log_{10}$(p value) in CAF CM
Q09666 1xPhospho [S1445];1xPhospho [S4715]	AHNAK S1445;S4715	CAF_only	1.50	0.18	8.94	1.36
Q9UBN6 2xPhospho [T383;S384]	TNFRSF10D T383;S384	Cancer_only	3.66	1.37	6.68	0.80
Q9H3M7 1xPhospho [T349]	TXNIP T349	Cancer_and_CAF	4.75	1.47	6.38	2.16
Q6KC79 [2481-2501]	NIPBL 2481-2501	CAF_only	-0.29	0.04	5.81	3.18
Q9P289 1xPhospho [S300]	STK26 S300	Cancer_only	6.87	1.43	5.70	0.82
P49207 1xPhospho [S12]	RPL34 S12	Cancer_only	1.98	1.59	5.38	0.90
Q9H3M7 1xPhospho [S361]	TXNIP S361	CAF_only	4.46	1.12	5.22	1.48
Q9P246 1xPhospho [S626]	STIM2 S626	CAF_only	1.98	0.57	4.84	1.93
O43493 2xPhospho [S298;S306]	TGOLN2 S298;S306	Cancer_and_CAF	3.53	1.48	4.29	2.81
Q8WUY3 1xPhospho [S2866]	PRUNE2 S2866	Cancer_and_CAF	1.57	1.57	4.25	1.42
Q8NBN3 1xPhospho [S475]	TMEM87A S475	Cancer_and_CAF	3.99	1.89	4.17	1.62
O43776 1xPhospho [S88]	NARS S88	CAF_only	3.24	0.58	4.14	1.32
P62750 1xPhospho [T42]	RPL23A T42	Cancer_only	6.18	1.60	3.87	0.42
O94887 2xPhospho [T22;S/T]	FARP2 T22;S/T	CAF_only	1.69	0.39	3.81	1.49
P16144 1xPhospho [S397]	ITGB4 S397	Cancer_only	2.61	1.63	3.73	0.52
Q14118 1xPhospho [T790]	DAG1 T790	CAF_only	4.60	0.56	3.72	1.61
Q7Z7L8 1xPhospho [S399]	C11orf96 S399	CAF_only	3.02	1.03	3.71	1.38
Q9UMX3 1xPhospho [S8]	BOK S8	CAF_only	0.69	0.97	3.71	3.61
Q9HAU0 1xPhospho [T460]	PLEKHA5 T460	CAF_only	1.63	0.76	3.61	1.61

Q6WCQ1 1xPhospho [S269]	MPRIP S269	CAF_only	2.00	0.62	3.61	1.90
Q96GS4 1xPhospho [T196]	C17orf59 T196	CAF_only	0.30	0.05	3.60	1.72
Q8WUM9 1xPhospho [S277]	SLC20A1 S277	CAF_only	1.40	1.05	3.56	1.93
O14786 1xPhospho [S894]	NRP1 S894	Cancer_only	3.15	1.70	3.52	0.73
Q07002 1xPhospho [S14]	CDK18 S14	CAF_only	0.71	0.15	3.42	2.08
O15155 1xPhospho [S50]	BET1 S50	CAF_only	1.22	0.34	3.42	1.34
P17676 [209-242]	CEBPB 209-242	Cancer_only	3.37	1.81	3.39	1.07
Q9UN70 1xPhospho [S733]	PCDHGC3 S733	Cancer_only	3.73	1.53	3.35	0.95
Q05D32 1xPhospho [S104]	CTDSPL2 S104	CAF_only	0.75	1.29	3.35	1.37
P61224 1xPhospho [S39]	RAP1B S39	CAF_only	2.09	0.72	3.33	1.41
Q15014 [63-74]	MORF4L2 63-74	CAF_only	-0.32	0.08	3.33	1.73
Q3KR37 1xPhospho [S274]	GRAMD1B S274	CAF_only	2.87	0.76	3.29	1.48
Q13501 1xPhospho [S342]	SQSTM1 S342	CAF_only	0.56	0.22	3.27	1.43
Q99758 1xPhospho [S846]	ABCA3 S846	CAF_only	1.55	0.59	3.26	1.58
P51003 1xPhospho [S654]	PAPOLA S654	CAF_only	2.66	0.81	3.26	1.58
Q14126 1xPhospho [T650]	DSG2 T650	CAF_only	0.26	0.07	3.25	1.42
P49815 2xPhospho [S1387;S1411]	TSC2 S1387;S1411	CAF_only	1.73	0.28	3.24	1.53
Q9BTT6 1xPhospho [T480]	LRRC1 T480	CAF_only	-0.01	0.02	3.23	1.43
Q13501 1xPhospho [T269]	SQSTM1 T269	CAF_only	2.69	0.60	3.21	1.90
O15127 1xPhospho [S319]	SCAMP2 S319	Cancer_and_CAF	1.82	1.49	3.19	1.78
Q96RU2 1xPhospho [S375]	USP28 S375	Cancer_only	2.46	1.46	3.18	0.89
Q96QT6 1xPhospho [S142]	PHF12 S142	Cancer_only	2.43	1.31	3.15	1.04
Q9Y2B5 1xPhospho [S116]	VPS9D1 S116	Cancer_and_CAF	2.03	2.21	3.15	1.59

P04083 1xPhospho [T24]	ANXA1 T24	CAF_only	-0.22	0.03	3.14	1.49
Q9NQL2 [86-99]	RRAGD 86-99	Cancer_only	2.67	1.93	3.14	1.17
P10451 2xPhospho [S303;S310]	SPP1 S303;S310	CAF_only	2.69	1.16	3.12	1.42
O15040 [410-435]	TECPR2 410-435	Cancer_and_CAF	2.03	1.70	3.07	1.63
Q9ULG6 1xPhospho [S190]	CCPG1 S190	Cancer_only	2.81	1.41	3.06	0.84
Q96CC6 1xPhospho [S76]	RHBDF1 S76	CAF_only	2.89	0.33	3.05	2.71
Q13459 1xPhospho [S1354]	MYO9B S1354	CAF_only	0.76	0.21	3.03	1.30
Q14766 1xPhospho [S1414]	LTBP1 S1414	CAF_only	1.62	0.45	3.03	2.87
P51532 2xPhospho [S610;S613]	SMARCA4 S610;S613	Cancer_only	4.10	1.47	3.01	0.94
O00479 1xPhospho [S80]	HMGN4 S80	CAF_only	1.39	0.63	2.93	2.10
Q5VT25 1xPhospho [S1721]	CDC42BPA S1721	Cancer_and_CAF	2.95	1.81	2.93	1.83
Q15149 1xPhospho [S2039]	PLEC S2039	CAF_only	0.56	0.33	2.92	1.37
Q96NR3 1xPhospho [S672]	PTCHD1 S672	CAF_only	-0.33	0.07	2.92	3.44
Q9BQE9 2xPhospho [S151;S152]	BCL7B S151;S152	Cancer_and_CAF	3.84	1.51	2.91	2.32
O14966 1xPhospho [S183]	RAB29 S183	CAF_only	2.40	0.73	2.90	1.64
Q8TE04 1xPhospho [S508]	PANK1 S508	CAF_only	1.75	0.63	2.90	1.74
Q9GZM8 1xPhospho [Y74]	NDEL1 Y74	Cancer_only	1.36	1.35	2.89	1.09
Q92974 [682-706]	ARHGEF2 682-706	CAF_only	1.98	0.97	2.88	1.73
Q14643 1xPhospho [S1598]	ITPR1 S1598	CAF_only	-0.67	0.12	2.87	1.94
O95466 1xPhospho [S624]	FMNL1 S624	CAF_only	0.87	0.46	2.86	1.69
Q53EL6 1xPhospho [S457]	PDCD4 S457	Cancer_and_CAF	1.84	2.14	2.84	1.37
Q13501 1xPhospho [S24]	SQSTM1 S24	CAF_only	1.20	0.46	2.82	1.49
P04075 1xPhospho [S46]	ALDOA S46	CAF_only	2.66	0.34	2.81	1.72

P16144 1xPhospho [T973]	ITGB4 T973	CAF_only	1.85	0.62	2.81	1.88
Q8N5G2 1xPhospho [S244]	TMEM57 S244	CAF_only	0.88	1.04	2.81	1.50
O14863 1xPhospho [S32]	SLC30A4 S32	Cancer_only	2.75	1.36	2.79	1.25
Q9H7J1 1xPhospho [S33]	PPP1R3E S33	CAF_only	2.57	0.76	2.77	1.82
Q9BXP5 1xPhospho [S21]	SRRT S21	Cancer_only	-2.23	1.36	2.77	0.49
Q12846 1xPhospho [S208]	STX4 S208	Cancer_only	2.31	2.27	2.76	0.74
Q9UHW9 2xPhospho [S1029;S1032]	SLC12A6 S1029;S1032	CAF_only	0.54	0.50	2.76	2.20
O94903 1xPhospho [S244]	PROSC S244	CAF_only	1.41	0.55	2.73	1.35
Q8N7X0 1xPhospho [S1454]	ADGB S1454	CAF_only	-2.76	0.15	2.72	1.61
Q6P9G4 1xPhospho [S140]	TMEM154 S140	CAF_only	1.54	1.26	2.72	1.44
Q00688 1xPhospho [S100]	FKBP3 S100	CAF_only	2.56	1.16	2.71	1.79
Q9NQV8 1xPhospho [S375]	PRDM8 S375	CAF_only	2.01	0.46	2.70	2.29
Q9UKV5 [507-536]	AMFR 507-536	CAF_only	0.62	0.26	2.69	1.61
Q86VQ1 1xPhospho [S398]	GLCCI1 S398	CAF_only	1.40	0.46	2.69	1.39
Q08752 1xPhospho [S198]	PPID S198	Cancer_and_CAF	2.91	1.80	2.66	2.25
Q8N6T3 1xPhospho [S343]	ARFGAP1 S343	Cancer_only	2.04	1.70	2.65	0.90
P61981 1xPhospho [S71]	YWHAG S71	Cancer_only	2.02	1.86	2.64	1.07
Q9NYQ6 2xPhospho [S2761;S2764]	CELSR1 S2761;S2764	Cancer_only	2.86	1.67	2.63	0.90
O95292 1xPhospho [S158]	VAPB S158	CAF_only	2.44	0.68	2.63	1.64
Q7L9B9 2xPhospho [S25;S31]	EEPD1 S25;S31	CAF_only	0.55	0.32	2.61	2.18
O95425 1xPhospho [T852]	SVIL T852	CAF_only	2.63	1.10	2.61	1.64
Q9P2D0 1xPhospho [S1045]	IBTK S1045	Cancer_and_CAF	2.05	2.38	2.60	2.23
Q9NTI5 2xPhospho [S1406;S/T]	PDS5B S1406;S/T	CAF_only	1.53	0.51	2.60	1.86

Q8WUM9 2xPhospho [S265;S]	SLC20A1 S265;S	Cancer_and_CAF	1.55	1.44	2.57	2.26
Q6P9G4 1xPhospho [S115]	TMEM154 S115	CAF_only	2.04	0.94	2.57	1.75
Q9UHB7 1xPhospho [S487]	AFF4 S487	CAF_only	3.36	0.26	2.56	1.53
Q8N3X1 1xPhospho [S499]	FNBP4 S499	Cancer_and_CAF	2.16	1.34	2.55	1.47
Q02078 [475-498]	MEF2A 475-498	Cancer_only	2.75	1.42	2.55	1.28
Q9Y2U5 1xPhospho [S153]	MAP3K2 S153	CAF_only	0.13	0.04	2.52	1.91
Q6P9G4 2xPhospho [S112;S115]	TMEM154 S112;S115	CAF_only	1.76	1.00	2.52	1.75
Q66GS9 1xPhospho [S356]	CEP135 S356	CAF_only	-0.25	0.25	2.51	1.43
O00562 1xPhospho [S373]	PITPNM1 S373	CAF_only	2.18	1.29	2.50	1.38
O43474 1xPhospho [T316]	KLF4 T316	Cancer_only	2.59	1.61	2.48	1.07
Q70CQ2 1xPhospho [S3439]	USP34 S3439	Cancer_only	1.60	1.67	2.48	1.08
P13521 1xPhospho [S268]	SCG2 S268	Cancer_and_CAF	1.42	2.27	2.48	1.31
P50549 1xPhospho [S216]	ETV1 S216	Cancer_only	2.00	1.70	2.47	1.16
P39748 1xPhospho [S349]	FEN1 S349	CAF_only	-0.30	0.05	2.47	2.01
P13521 1xPhospho [S378]	SCG2 S378	Cancer_only	1.24	1.62	2.46	1.07
Q86VQ1 1xPhospho [S108]	GLCCI1 S108	CAF_only	1.86	0.57	2.46	2.07
Q12789 1xPhospho [S739]	GTF3C1 S739	CAF_only	2.55	1.00	2.42	1.40
Q15652 2xPhospho [S501;T505]	JMJD1C S501;T505	CAF_only	0.85	0.75	2.42	2.39
Q5T4S7 2xPhospho [S362;S/T/Y]	UBR4 S362;S/T/Y	CAF_only	2.10	1.04	2.41	1.55
P27348 1xPhospho [S64]	YWHAQ S64	CAF_only	1.57	0.49	2.41	1.44
P31946 1xPhospho [S66]	YWHAB S66	CAF_only	1.57	0.49	2.41	1.44
P31947 1xPhospho [S64]	SFN S64	CAF_only	1.57	0.49	2.41	1.44
P61981 1xPhospho [S65]	YWHAG S65	CAF_only	1.57	0.49	2.41	1.44

Q04917 1xPhospho [S65]	YWHAH S65	CAF_only	1.57	0.49	2.41	1.44
Q8NDI1 2xPhospho [S660;T/S]	EHBP1 S660;T/S	CAF_only	1.34	0.27	2.41	2.45
P07814 1xPhospho [S999]	EPRS S999	CAF_only	0.90	0.27	2.40	1.42
O75379 1xPhospho [S88]	VAMP4 S88	CAF_only	1.40	0.97	2.40	1.43
Q96IF1 1xPhospho [S137]	AJUBA S137	CAF_only	1.83	0.47	2.39	1.50
Q13017 1xPhospho [S1195]	ARHGAP5 S1195	CAF_only	1.45	0.77	2.39	1.99
O95936 1xPhospho [S596]	EOMES S596	CAF_only	2.20	1.14	2.37	2.13
Q9H4L5 [363-381]	OSBPL3 363-381	CAF_only	-0.10	0.26	2.37	1.60
O94923 1xPhospho [S73]	GLCE S73	Cancer_only	2.00	1.31	2.36	1.18
O94806 2xPhospho [S30;S31]	PRKD3 S30;S31	Cancer_only	1.37	2.48	2.35	0.45
P51151 1xPhospho [S179]	RAB9A S179	Cancer_only	1.68	1.62	2.34	0.72
P22314 1xPhospho [S24]	UBA1 S24	Cancer_only	2.93	1.55	2.33	0.82
Q17RY0 1xPhospho [S97]	CPEB4 S97	CAF_only	1.79	0.80	2.32	1.71
P38936 1xPhospho [S130]	CDKN1A S130	Cancer_only	3.37	1.45	2.31	0.73
P17302 1xPhospho [S262]	GJA1 S262	Cancer_only	1.58	1.71	2.30	0.92
P53621 1xPhospho [S402]	COPA S402	CAF_only	1.11	0.79	2.29	1.55
O15021 1xPhospho [S2552]	MAST4 S2552	CAF_only	0.74	0.53	2.28	1.50
Q9NQT8 1xPhospho [S1410]	KIF13B S1410	CAF_only	2.14	0.42	2.28	1.36
Q14155 1xPhospho [S694]	ARHGEF7 S694	CAF_only	1.35	0.86	2.27	1.81
Q96JG9 1xPhospho [S775]	ZNF469 S775	CAF_only	1.35	0.15	2.26	1.65
Q9H3N1 1xPhospho [S280]	TMX1 S280	CAF_only	0.91	0.51	2.25	1.73
Q5JSH3 [157-178]	WDR44 157-178	CAF_only	2.52	0.88	2.25	1.35
Q8WVR3 1xPhospho [S533]	C7orf43 S533	Cancer_only	2.19	1.47	2.25	1.12

Q9Y4E5 1xPhospho [S853]	ZNF451 S853	CAF_only	2.01	0.79	2.25	1.44
P28290 [590-608]	SSFA2 590-608	CAF_only	0.99	1.26	2.24	1.54
P0DN79 1xPhospho [S32]	CBSL S32	CAF_only	2.25	0.79	2.23	1.58
Q06418 1xPhospho [S466]	TYRO3 S466	CAF_only	1.21	0.35	2.23	1.97
Q6PJG2 2xPhospho [T655;S661]	ELMSAN1 T655;S661	CAF_only	-0.25	0.31	2.22	1.48
Q8TC26 1xPhospho [S12]	TMEM163 S12	CAF_only	1.42	0.46	2.21	1.63
Q13427 2xPhospho [S356;T358]	PPIG S356;T358	Cancer_only	3.08	1.31	2.21	0.63
Q9H1A4 [680-694]	ANAPC1 680-694	CAF_only	0.15	0.17	2.20	2.01
Q9H063 1xPhospho [S214]	MAF1 S214	CAF_only	0.30	0.28	2.20	1.30
Q13873 1xPhospho [S681]	BMPR2 S681	CAF_only	0.99	0.93	2.19	1.71
P42694 1xPhospho [S1179]	HELZ S1179	CAF_only	1.10	0.76	2.19	1.36
P04792 2xPhospho [S82;S86]	HSPB1 S82;S86	Cancer_only	1.04	1.49	2.18	0.63
Q92974 1xPhospho [S886]	ARHGEF2 S886	CAF_only	1.06	0.71	2.18	1.61
Q9H1B7 1xPhospho [S547]	IRF2BPL S547	Cancer_only	1.84	1.35	2.17	0.96
Q6ZWE6 1xPhospho [S152]	PLEKHM3 S152	CAF_only	1.89	0.48	2.17	2.17
Q7Z3T8 1xPhospho [S79]	ZFYVE16 S79	CAF_only	1.72	1.07	2.17	2.27
Q96AX9 1xPhospho [S309]	MIB2 S309	CAF_only	1.59	0.53	2.17	2.33
Q92974 2xPhospho [S956;S960]	ARHGEF2 S956;S960	Cancer_only	1.92	2.09	2.17	1.19
P11137 1xPhospho [S833]	MAP2 S833	CAF_only	-0.21	0.15	2.16	3.02
Q5TCZ1 1xPhospho [S1002]	SH3PXD2A S1002	CAF_only	0.88	0.70	2.15	1.64
P13521 1xPhospho [S532]	SCG2 S532	Cancer_and_CAF	1.95	1.40	2.14	1.35
O15075 [330-342]	DCLK1 330-342	CAF_only	2.60	1.20	2.14	1.87
Q9BRS8 1xPhospho [S396]	LARP6 S396	CAF_only	2.97	0.69	2.14	1.79

Q8TDY2 1xPhospho [S624]	RB1CC1 S624	Cancer_and_CAF	2.14	1.63	2.14	1.43
Q5TCZ1 [817-835]	SH3PXD2A 817-835	CAF_only	1.71	1.23	2.13	3.41
P10644 2xPhospho [T75;S83]	PRKAR1A T75;S83	Cancer_only	1.22	2.02	2.13	0.83
Q9C040 [360-385]	TRIM2 360-385	Cancer_only	2.06	1.69	2.13	1.13
Q9H0X4 1xPhospho [S21]	ITFG3 S21	Cancer_and_CAF	2.56	1.83	2.12	1.39
Q9NV70 [477-486]	EXOC1 477-486	CAF_only	2.60	0.75	2.12	1.64
Q05209 [565-592]	PTPN12 565-592	Cancer_and_CAF	1.80	1.49	2.12	2.89
O00767 1xPhospho [T199]	SCD T199	Cancer_only	2.78	1.77	2.12	1.05
O60271 2xPhospho [S733;S]	SPAG9 S733;S	CAF_only	2.46	1.15	2.11	1.54
O95477 1xPhospho [S2234]	ABCA1 S2234	Cancer_only	1.08	2.68	2.11	0.97
Q8WU20 1xPhospho [S365]	FRS2 S365	CAF_only	0.06	0.05	2.11	1.33
Q86WC4 1xPhospho [S325]	OSTM1 S325	CAF_only	0.86	0.45	2.10	1.48
Q9Y2X3 1xPhospho [S502]	NOP58 S502	CAF_only	1.21	1.24	2.09	1.52
P46937 1xPhospho [S164]	YAP1 S164	Cancer_and_CAF	1.46	1.77	2.07	1.95
Q16666 [769-785]	IFI16 769-785	CAF_only	1.48	0.69	2.07	1.49
Q9BRS8 1xPhospho [S56]	LARP6 S56	CAF_only	1.98	0.73	2.07	1.32
P24534 1xPhospho [S43]	EEF1B2 S43	CAF_only	0.99	0.82	2.06	2.17
Q16594 2xPhospho [S158;T159]	TAF9 S158;T159	CAF_only	0.73	0.27	2.06	1.51
Q04656 1xPhospho [S1463]	ATP7A S1463	Cancer_only	1.38	1.46	2.06	0.75
P08648 1xPhospho [S123]	ITGA5 S123	Cancer_and_CAF	1.72	1.53	2.06	1.73
Q9NX40 [121-131]	OCIAD1 121-131	CAF_only	0.78	0.13	2.06	1.61
P05198 1xPhospho [S110]	EIF2S1 S110	CAF_only	1.48	1.29	2.05	1.40
Q8NDI1 1xPhospho [S664]	EHBP1 S664	CAF_only	1.56	1.05	2.05	2.47

P23193 1xPhospho [S100]	TCEA1 S100	CAF_only	0.42	0.05	2.05	1.46
O75152 1xPhospho [S290]	ZC3H11A S290	CAF_only	-0.62	0.60	2.05	1.95
P40763 2xPhospho [T714;S727]	STAT3 T714;S727	CAF_only	0.73	0.69	2.04	1.48
Q14997 1xPhospho [S1746]	PSME4 S1746	Cancer_and_CAF	1.57	3.76	2.02	1.96
P46940 1xPhospho [T1434]	IQGAP1 T1434	Cancer_only	2.66	1.55	2.02	0.76
Q8IXJ6 1xPhospho [S372]	SIRT2 S372	CAF_only	0.93	0.57	2.02	1.48
Q9P227 1xPhospho [S611]	ARHGAP23 S611	CAF_only	0.13	0.16	2.02	1.61
Q12852 1xPhospho [S634]	MAP3K12 S634	CAF_only	1.28	1.03	2.01	1.97
Q6ZRS2 2xPhospho [S2787;S/T]	SRCAP S2787;S/T	CAF_only	1.54	0.65	2.01	1.41
Q32P44 1xPhospho [S889]	EML3 S889	Cancer_only	2.21	1.38	2.01	0.68
A7MBM2 1xPhospho [S1175]	DISP2 S1175	CAF_only	0.55	0.21	2.01	1.47
Q9UHW9 1xPhospho [S32]	SLC12A6 S32	CAF_only	1.46	1.02	2.00	1.69
O15021 1xPhospho [S2520]	MAST4 S2520	CAF_only	1.36	0.80	2.00	2.09
Q9H2H9 1xPhospho [S52]	SLC38A1 S52	Cancer_only	2.02	1.62	1.99	0.82
Q9P0V9 1xPhospho [S28]	SEPTIN10 S28	CAF_only	2.00	1.05	1.99	2.28
Q9H1B7 1xPhospho [S69]	IRF2BPL S69	Cancer_only	1.60	2.19	1.99	0.80
Q9C0D5 1xPhospho [T687]	TANC1 T687	CAF_only	2.29	0.61	1.99	1.49
Q13813 1xPhospho [S1217]	SPTAN1 S1217	Cancer_and_CAF	1.83	1.51	1.98	2.17
P62328 1xPhospho [T34]	TMSB4X T34	CAF_only	0.13	0.06	1.98	1.38
P13521 1xPhospho [S556]	SCG2 S556	Cancer_only	1.17	1.57	1.97	0.89
Q8N350 1xPhospho [T154]	DOS T154	CAF_only	0.03	0.04	1.97	1.56
Q9Y6Q9 1xPhospho [S214]	NCOA3 S214	Cancer_only	1.33	1.37	1.97	0.66
O95359 1xPhospho [S2072]	TACC2 S2072	CAF_only	-0.76	0.07	1.97	1.82

Q8IY33 2xPhospho [S122;S125]	MICALL2 S122;S125	CAF_only	0.41	0.22	1.96	2.00
Q8NFG4 1xPhospho [S302]	FLCN S302	CAF_only	0.91	0.79	1.96	1.53
Q8N3A8 1xPhospho [S412]	PARP8 S412	CAF_only	2.01	0.54	1.95	1.87
O43493 1xPhospho [S245]	TGOLN2 S245	Cancer_only	2.42	1.31	1.95	0.88
Q09666 1xPhospho [T590]	AHNAK T590	CAF_only	-0.24	0.06	1.94	1.41
Q92934 1xPhospho [S118]	BAD S118	Cancer_only	2.11	1.51	1.94	0.99
Q9UQL6 1xPhospho [S259]	HDAC5 S259	Cancer_only	1.28	1.31	1.93	0.86
P56524 1xPhospho [S246]	HDAC4 S246	Cancer_only	1.28	1.31	1.93	0.86
Q5TCZ1 1xPhospho [S567]	SH3PXD2A S567	Cancer_only	2.43	1.52	1.93	1.19
Q8NDI1 1xPhospho [S1058]	EHBP1 S1058	Cancer_only	1.85	1.96	1.93	1.08
Q13501 2xPhospho [T269;S272]	SQSTM1 T269;S272	CAF_only	0.91	0.35	1.92	2.05
Q3L8U1 2xPhospho [S2075;S2079]	CHD9 S2075;S2079	CAF_only	0.84	0.21	1.92	1.41
Q5T5P2 1xPhospho [S1461]	KIAA1217 S1461	CAF_only	0.50	0.16	1.91	1.51
Q96MH2 1xPhospho [S29]	HEXIM2 S29	Cancer_and_CAF	2.80	1.44	1.91	1.77
Q5T4S7 [360-380]	UBR4 360-380	CAF_only	1.35	0.73	1.91	2.01
O43815 [222-235]	STRN 222-235	CAF_only	2.65	0.63	1.90	1.57
Q5VZ89 [1276-1295]	DENND4C 1276-1295	CAF_only	1.25	0.86	1.90	1.64
Q13541 1xPhospho [T68]	EIF4EBP1 T68	Cancer_only	1.14	2.16	1.90	0.90
Q8TC26 1xPhospho [S55]	TMEM163 S55	CAF_only	1.25	0.57	1.90	1.51
O60716 2xPhospho [S861;S864]	CTNND1 S861;S864	CAF_only	1.28	0.42	1.90	1.62
Q5T481 1xPhospho [S1060]	RBM20 S1060	CAF_only	0.64	0.52	1.90	1.44
P39880 1xPhospho [S887]	CUX1 S887	CAF_only	0.93	1.48	1.89	1.54
P38159 1xPhospho [S58]	RBMX S58	CAF_only	0.94	0.29	1.89	1.68

Q96E39 1xPhospho [S58]	RBMXL1 S58	CAF_only	0.94	0.29	1.89	1.68
P43243 1xPhospho [S234]	MATR3 S234	CAF_only	1.15	0.60	1.88	1.90
O00461 1xPhospho [S283]	GOLIM4 S283	Cancer_only	2.33	1.86	1.88	0.60
Q8WUB8 1xPhospho [S36]	PHF10 S36	Cancer_only	1.56	1.50	1.88	0.97
Q9H792 [208-224]	PEAK1 208-224	CAF_only	-0.19	0.18	1.88	1.75
Q68DQ2 1xPhospho [S177]	CRYBG3 S177	CAF_only	0.62	0.15	1.87	1.61
P12931 1xPhospho [S104]	SRC S104	CAF_only	0.93	0.73	1.86	1.55
P55265 2xPhospho [S599;T601]	ADAR S599;T601	CAF_only	1.06	0.46	1.86	2.13
Q99684 1xPhospho [S94]	GFI1 S94	Cancer_only	2.26	1.63	1.85	0.71
Q13813 1xPhospho [S1031]	SPTAN1 S1031	Cancer_only	3.94	1.33	1.85	0.60
O43493 1xPhospho [S71]	TGOLN2 S71	Cancer_and_CAF	2.09	2.11	1.85	1.43
P50402 1xPhospho [S176]	EMD S176	CAF_only	1.33	0.61	1.85	1.64
Q9H5V8 1xPhospho [S797]	CDCP1 S797	CAF_only	0.89	0.70	1.83	1.38
Q9BRK4 1xPhospho [S301]	LZTS2 S301	Cancer_only	2.27	1.32	1.83	1.07
Q6UB99 2xPhospho [T829;S834]	ANKRD11 T829;S834	Cancer_only	1.02	1.92	1.83	0.54
Q9P227 2xPhospho [S361;S372]	ARHGAP23 S361;S372	CAF_only	0.77	0.36	1.82	1.64
Q9H4A5 1xPhospho [S38]	GOLPH3L S38	CAF_only	0.31	0.20	1.82	1.43
O60333 1xPhospho [S1487]	KIF1B S1487	Cancer_and_CAF	2.17	1.77	1.82	1.36
P54727 2xPhospho [S160;S166]	RAD23B S160;S166	Cancer_and_CAF	1.45	2.31	1.81	1.81
Q9P260 1xPhospho [S193]	KIAA1468 S193	CAF_only	1.85	1.15	1.81	1.52
Q86VX9 1xPhospho [S107]	MON1A S107	Cancer_only	1.45	2.02	1.81	1.16
Q01105 1xPhospho [S7]	SET S7	Cancer_and_CAF	1.09	2.09	1.80	1.55
Q08188 1xPhospho [S26]	TGM3 S26	CAF_only	-1.32	0.19	1.80	1.32

P46821 1xPhospho [S561]	MAP1B S561	CAF_only	1.13	0.42	1.80	2.17
Q8N3D4 1xPhospho [S1257]	EHBP1L1 S1257	CAF_only	0.45	0.26	1.80	2.00
Q96JM3 1xPhospho [S204]	CHAMP1 S204	CAF_only	1.51	1.14	1.79	1.49
P78362 [8-19]	SRPK2 8-19	CAF_only	0.48	0.29	1.78	1.81
Q9Y490 1xPhospho [S1225]	TLN1 S1225	CAF_only	1.37	1.22	1.78	1.49
O15197 1xPhospho [T678]	EPHB6 T678	Cancer_only	1.61	2.23	1.78	0.56
O75976 1xPhospho [T1368]	CPD T1368	Cancer_only	1.29	1.62	1.77	0.63
O94880 1xPhospho [S835]	PHF14 S835	CAF_only	-0.28	0.41	1.77	1.51
Q86VQ1 2xPhospho [S105;S107]	GLCCI1 S105;S107	CAF_only	1.21	0.68	1.77	1.34
O14647 2xPhospho [S1085;S1087]	CHD2 S1085;S1087	Cancer_only	1.10	1.50	1.77	1.19
P49810 2xPhospho [S22;S25]	PSEN2 S22;S25	CAF_only	0.91	0.31	1.76	1.34
Q12802 1xPhospho [S1906]	AKAP13 S1906	Cancer_only	2.15	1.33	1.75	0.88
Q3YEC7 [639-645]	RABL6 639-645	CAF_only	1.98	1.21	1.74	2.18
Q8WXI9 1xPhospho [S334]	GATAD2B S334	CAF_only	-0.12	0.06	1.74	1.40
Q96MC6 1xPhospho [S14]	HIAT1 S14	CAF_only	1.15	0.56	1.73	1.54
Q08174 1xPhospho [S984]	PCDH1 S984	Cancer_only	2.28	2.96	1.73	0.95
Q96S55 2xPhospho [S75;S77]	WRNIP1 S75;S77	CAF_only	0.19	0.14	1.73	1.76
P50402 1xPhospho [S120]	EMD S120	CAF_only	-1.59	0.37	1.72	1.55
Q12857 1xPhospho [S258]	NFIA S258	Cancer_only	1.63	2.74	1.72	0.78
P21675 1xPhospho [S1826]	TAF1 S1826	CAF_only	2.11	1.27	1.72	1.69
Q5VT25 2xPhospho [S1721;S1724]	CDC42BPA S1721;S1724	Cancer_only	2.08	1.52	1.71	0.80
Q6IE81 1xPhospho [S89]	JADE1 S89	CAF_only	-0.86	0.31	1.71	1.51

Q96MH2 1xPhospho [S53]	HEXIM2 S53	CAF_only	0.94	0.66	1.71	2.32
P02686 2xPhospho [S16;S19]	MBP S16;S19	CAF_only	0.27	0.46	1.71	1.72
Q9H2H9 [6-42]	SLC38A1 6-42	Cancer_only	2.15	1.37	1.70	0.90
P19634 1xPhospho [S796]	SLC9A1 S796	CAF_only	0.12	0.60	1.69	1.32
Q9H4L7 2xPhospho [S239;S242]	SMARCAD1 S239;S242	Cancer_and_CAF	2.57	1.83	1.69	1.34
Q15811 1xPhospho [S203]	ITSN1 S203	CAF_only	1.72	0.59	1.69	2.29
O60502 1xPhospho [S364]	MGEA5 S364	Cancer_only	1.46	1.79	1.69	1.28
Q16204 1xPhospho [T115]	CCDC6 T115	CAF_only	2.33	0.52	1.69	2.17
P51809 1xPhospho [S167]	VAMP7 S167	CAF_only	1.00	0.60	1.68	1.60
Q5THJ4 1xPhospho [S1138]	VPS13D S1138	CAF_only	0.75	2.04	1.67	1.77
Q14814 [450-483]	MEF2D 450-483	CAF_only	0.31	0.25	1.67	1.34
Q99959 1xPhospho [S82]	PKP2 S82	Cancer_only	1.10	1.42	1.67	0.29
P35610 1xPhospho [S86]	SOAT1 S86	CAF_only	0.17	0.47	1.66	1.66
Q9UPN3 1xPhospho [S7330]	MACF1 S7330	CAF_only	0.50	1.57	1.66	1.89
P50851 2xPhospho [T1074;S/T]	LRBA T1074;S/T	Cancer_only	1.33	1.63	1.66	0.40
Q9NR19 1xPhospho [S30]	ACSS2 S30	CAF_only	1.79	0.55	1.66	3.54
Q9NV79 1xPhospho [S306]	PCMTD2 S306	CAF_only	0.99	0.61	1.65	1.37
P46821 2xPhospho [S1618;S1620]	MAP1B S1618;S1620	Cancer_only	1.74	1.34	1.65	0.87
Q9Y2K2 1xPhospho [S551]	SIK3 S551	CAF_only	0.96	0.83	1.65	1.64
O94887 1xPhospho [S439]	FARP2 S439	CAF_only	0.98	1.59	1.64	1.69
Q9C0C4 1xPhospho [S717]	SEMA4C S717	Cancer_only	1.31	1.44	1.64	0.93
P10451 1xPhospho [S263]	SPP1 S263	CAF_only	1.77	0.78	1.64	2.37
Q10471 1xPhospho [S94]	GALNT2 S94	Cancer_only	1.01	1.62	1.63	0.85

Q96BY6 1xPhospho [S302]	DOCK10 S302	CAF_only	1.61	0.55	1.63	1.60
Q96QT4 1xPhospho [S1504]	TRPM7 S1504	CAF_only	0.98	1.10	1.63	1.63
Q86VM9 1xPhospho [S95]	ZC3H18 S95	Cancer_only	1.22	1.93	1.63	1.01
Q9BRK5 1xPhospho [S173]	SDF4 S173	CAF_only	-0.11	0.08	1.63	1.66
Q01484 1xPhospho [S3947]	ANK2 S3947	Cancer_only	2.32	2.05	1.63	0.95
ENST00000281416_NCI-H1792_Mis:V645I 1xPhospho [T10]	MFSD6 T10	Cancer_only	1.06	1.96	1.62	0.85
P29590 2xPhospho [S403;S/T]	PML S403;S/T	CAF_only	-0.18	0.15	1.61	1.56
P49770 1xPhospho [T173]	EIF2B2 T173	CAF_only	1.03	0.72	1.61	1.41
Q13136 1xPhospho [T324]	PPFIA1 T324	Cancer_and_CAF	1.22	1.32	1.61	1.33
P21333 1xPhospho [S968]	FLNA S968	CAF_only	1.29	0.64	1.61	1.33
Q96JM3 1xPhospho [S445]	CHAMP1 S445	CAF_only	1.27	0.67	1.60	2.05
Q5T200 2xPhospho [S238;S242]	ZC3H13 S238;S242	CAF_only	0.16	0.19	1.60	1.84
Q96S55 1xPhospho [S75]	WRNIP1 S75	CAF_only	0.10	0.05	1.60	1.39
Q9NQ84 1xPhospho [S344]	GPRC5C S344	CAF_only	1.15	0.32	1.60	1.42
Q9BZQ8 2xPhospho [S596;S/T]	FAM129A S596;S/T	CAF_only	2.25	0.96	1.60	1.36
Q12852 1xPhospho [S500]	MAP3K12 S500	CAF_only	1.61	0.77	1.59	1.32
Q7Z5L9 2xPhospho [S455;S457]	IRF2BP2 S455;S457	CAF_only	0.90	0.47	1.59	1.35
Q9UEY8 1xPhospho [S681]	ADD3 S681	Cancer_only	2.05	1.45	1.59	0.94
P52701 1xPhospho [S137]	MSH6 S137	CAF_only	0.63	2.46	1.59	2.19
Q14738 1xPhospho [S573]	PPP2R5D S573	CAF_only	-2.47	0.27	1.58	1.49
Q6AI08 1xPhospho [S643]	HEATR6 S643	Cancer_only	2.66	1.48	1.58	0.62
Q8IWU2 2xPhospho [S1107;S1111]	LMTK2 S1107;S1111	CAF_only	1.25	0.81	1.57	1.67

Q8N350 1xPhospho [S133]	DOS S133	CAF_only	0.16	1.11	1.57	1.76
P35237 1xPhospho [S151]	SERPINB6 S151	CAF_only	1.10	0.65	1.57	1.72
Q13023 1xPhospho [S1655]	AKAP6 S1655	Cancer_only	1.19	1.96	1.57	0.84
O75056 1xPhospho [S428]	SDC3 S428	CAF_only	1.74	0.71	1.57	1.33
O95359 1xPhospho [S2317]	TACC2 S2317	Cancer_only	2.08	2.46	1.57	1.05
P10451 2xPhospho [S62;S63]	SPP1 S62;S63	CAF_only	1.39	0.69	1.57	1.85
Q9Y6M4 1xPhospho [S345]	CSNK1G3 S345	CAF_only	0.45	0.37	1.57	1.45
Q6L8Q7 2xPhospho [S219;S220]	PDE12 S219;S220	CAF_only	1.51	0.51	1.57	1.75
Q03188 1xPhospho [S538]	CENPC S538	Cancer_only	1.61	1.58	1.56	1.13
P42166 2xPhospho [S159;T160]	TMPO S159;T160	Cancer_and_CAF	1.46	2.39	1.56	1.59
P42167 2xPhospho [S159;T160]	TMPO S159;T160	Cancer_and_CAF	1.46	2.39	1.56	1.59
O00193 1xPhospho [S17]	SMAP S17	Cancer_and_CAF	1.35	1.35	1.55	1.89
Q8IU81 1xPhospho [S66]	IRF2BP1 S66	CAF_only	0.95	0.92	1.55	1.74
Q4VC05 1xPhospho [S114]	BCL7A S114	CAF_only	0.89	1.36	1.54	1.49
Q92797 [493-520]	SYMPK 493-520	CAF_only	0.62	0.27	1.54	1.41
P53396 1xPhospho [S1100]	ACLY S1100	CAF_only	0.52	0.34	1.54	2.18
Q9H7D7 1xPhospho [S658]	WDR26 S658	CAF_only	1.02	0.38	1.54	1.59
Q9NQQ7 1xPhospho [S335]	SLC35C2 S335	CAF_only	1.94	0.77	1.54	2.06
Q9BPX5 1xPhospho [S64]	ARPC5L S64	CAF_only	1.37	1.29	1.54	1.47
P53985 2xPhospho [S461;T/S]	SLC16A1 S461;T/S	Cancer_only	1.54	1.64	1.53	0.89
Q00587 1xPhospho [S350]	CDC42EP1 S350	CAF_only	3.42	1.20	1.53	1.85
O43493 1xPhospho [S315]	TGOLN2 S315	Cancer_and_CAF	2.05	1.34	1.53	1.58
O75164 2xPhospho [S520;S523]	KDM4A S520;S523	CAF_only	1.48	1.14	1.53	1.38

A8MW92 1xPhospho [S584]	PHF20L1 S584	CAF_only	1.06	0.88	1.52	1.35
Q86X10 1xPhospho [S359]	RALGAPB S359	CAF_only	1.46	1.29	1.52	1.36
Q96Q45 1xPhospho [S62]	TMEM237 S62	CAF_only	0.19	0.62	1.52	2.31
Q09666 1xPhospho [T4766]	AHNAK T4766	Cancer_only	-1.44	2.37	1.52	0.21
O14672 1xPhospho [S83]	ADAM10 S83	CAF_only	2.21	1.00	1.52	2.06
O43432 1xPhospho [S1409]	EIF4G3 S1409	CAF_only	1.26	0.99	1.51	1.52
Q9BYX2 1xPhospho [T290]	TBC1D2 T290	CAF_only	-0.15	1.66	1.51	1.79
Q13488 1xPhospho [S691]	TCIRG1 S691	Cancer_and_CAF	1.07	1.30	1.51	1.70
Q08174 2xPhospho [S973;S984]	PCDH1 S973;S984	CAF_only	1.57	0.47	1.51	1.55
Q5SYE7 1xPhospho [S198]	NHSL1 S198	CAF_only	-0.43	0.16	1.51	1.53
P42166 [158-173]	TMPO 158-173	CAF_only	2.23	0.97	1.51	1.35
P42167 [158-173]	TMPO 158-173	CAF_only	2.23	0.97	1.51	1.35
Q13895 1xPhospho [T164]	BYSL T164	CAF_only	-1.43	0.82	1.51	2.31
P57768 1xPhospho [S286]	SNX16 S286	CAF_only	1.37	0.92	1.50	1.51
Q07617 1xPhospho [S347]	SPAG1 S347	Cancer_only	1.50	1.51	1.50	0.72
O43493 1xPhospho [S224]	TGOLN2 S224	Cancer_and_CAF	1.79	1.81	1.50	1.53
Q7Z6E9 1xPhospho [S1646]	RBBP6 S1646	CAF_only	0.41	0.10	1.50	1.50
Q8N614 1xPhospho [S262]	TMEM156 S262	Cancer_only	1.17	1.43	1.50	1.06
Q9Y2X9 1xPhospho [S800]	ZNF281 S800	CAF_only	0.45	0.13	1.50	2.14
Q32MZ4 1xPhospho [S555]	LRRFIP1 S555	CAF_only	1.86	0.67	1.50	1.38
Q15024 1xPhospho [S177]	EXOSC7 S177	Cancer_only	1.39	2.08	1.49	0.67
P51812 1xPhospho [S17]	RPS6KA3 S17	CAF_only	1.93	1.00	1.49	1.65
P40306 1xPhospho [S230]	PSMB10 S230	CAF_only	1.42	0.81	1.49	2.10

Q5VWG9 [288-303]	TAF3 288-303	CAF_only	1.09	0.56	1.49	1.48
Q7Z6Z7 1xPhospho [S1907]	HUWE1 S1907	CAF_only	1.91	0.88	1.48	1.67
P51858 2xPhospho [S132;S133]	HDGF S132;S133	CAF_only	1.28	1.02	1.48	1.41
Q96JG9 1xPhospho [S1404]	ZNF469 S1404	CAF_only	0.67	0.87	1.48	1.35
Q68DK2 1xPhospho [S703]	ZFYVE26 S703	Cancer_only	1.59	1.38	1.48	0.78
Q93100 1xPhospho [S701]	PHKB S701	CAF_only	0.55	0.59	1.48	3.13
Q5T1V6 1xPhospho [S156]	DDX59 S156	CAF_only	0.05	0.02	1.48	1.40
P28290 2xPhospho [S424;S427]	SSFA2 S424;S427	CAF_only	0.92	0.58	1.48	2.18
Q9P0K8 2xPhospho [S164;S]	FOXJ2 S164;S	CAF_only	0.71	0.30	1.48	1.78
P26038 1xPhospho [S576]	MSN S576	CAF_only	1.51	0.36	1.48	2.16
P51812 1xPhospho [T577]	RPS6KA3 T577	CAF_only	-0.11	0.11	1.48	1.36
Q15418 1xPhospho [T573]	RPS6KA1 T573	CAF_only	-0.11	0.11	1.48	1.36
P04920 1xPhospho [S144]	SLC4A2 S144	CAF_only	0.09	0.34	1.48	1.31
Q8IWU2 1xPhospho [S1450]	LMTK2 S1450	CAF_only	1.25	0.83	1.47	1.96
Q70EL1 1xPhospho [S1531]	USP54 S1531	CAF_only	0.49	0.51	1.47	1.53
P13667 1xPhospho [S470]	PDIA4 S470	CAF_only	0.99	1.70	1.47	1.85
P10321 1xPhospho [S357]	HLA-C S357	CAF_only	0.45	0.75	1.47	1.87
O14558 1xPhospho [S16]	HSPB6 S16	CAF_only	-0.20	0.28	1.47	1.87
O94762 2xPhospho [S488;S491]	RECQL5 S488;S491	CAF_only	1.17	1.16	1.47	1.49
Q9Y6X4 2xPhospho [S635;S636]	FAM169A S635;S636	CAF_only	1.30	1.03	1.47	1.69
Q86VQ1 2xPhospho [S145;S148]	GLCCI1 S145;S148	CAF_only	1.01	1.14	1.47	1.38
P78345 1xPhospho [S215]	RPP38 S215	CAF_only	-0.46	0.07	1.46	1.87
P21980 1xPhospho [S216]	TGM2 S216	CAF_only	1.91	1.10	1.46	1.46

Q92628 1xPhospho [S227]	KIAA0232 S227	CAF_only	1.41	0.78	1.46	3.34
Q63HN8 [3481-3514]	RNF213 3481-3514	CAF_only	-5.68	0.35	1.46	3.16
P17302 2xPhospho [S282;S/Y/T]	GJA1 S282;S/Y/T	CAF_only	0.00	0.00	1.46	1.36
O15440 1xPhospho [S803]	ABCC5 S803	CAF_only	2.80	0.54	1.46	1.36
Q2M389 [1149-1173]	KIAA1033 1149-1173	CAF_only	1.32	1.00	1.46	1.41
Q01167 2xPhospho [S424;S428]	FOXK2 S424;S428	Cancer_only	1.23	1.59	1.46	0.52
Q8N108 1xPhospho [S488]	MIER1 S488	Cancer_only	2.46	2.30	1.45	0.78
Q8WYL5 1xPhospho [S978]	SSH1 S978	CAF_only	1.16	0.29	1.45	1.32
P55084 1xPhospho [S250]	HADHB S250	CAF_only	1.16	0.29	1.45	1.32
Q12888 [1670-1677]	TP53BP1 1670-1677	CAF_only	1.43	1.20	1.45	1.76
Q8IYB7 2xPhospho [S883;T/S]	DIS3L2 S883;T/S	CAF_only	1.26	0.35	1.45	1.36
P51812 1xPhospho [S415]	RPS6KA3 S415	CAF_only	0.50	1.09	1.44	3.07
O14647 2xPhospho [S1369;S1373]	CHD2 S1369;S1373	Cancer_and_CAF	2.05	1.57	1.44	1.40
Q9NUY8 1xPhospho [S571]	TBC1D23 S571	CAF_only	0.53	0.52	1.44	1.87
P02686 1xPhospho [S40]	MBP S40	CAF_only	1.08	0.86	1.44	1.61
Q15435 1xPhospho [S24]	PPP1R7 S24	Cancer_only	1.68	1.30	1.44	0.69
O95936 1xPhospho [S646]	EOMES S646	CAF_only	1.36	0.79	1.44	1.42
Q2TAZ0 1xPhospho [S1263]	ATG2A S1263	Cancer_only	3.04	1.34	1.43	0.18
Q9NVE7 1xPhospho [S63]	PANK4 S63	Cancer_only	1.44	1.77	1.43	0.71
O43306 1xPhospho [S54]	ADCY6 S54	CAF_only	0.45	0.28	1.42	1.46
Q8N350 2xPhospho [S699;S703]	DOS S699;S703	CAF_only	-0.34	0.12	1.42	1.38
Q8NFH8 1xPhospho [S493]	REPS2 S493	Cancer_only	1.94	1.71	1.42	0.57
Q96JK2 1xPhospho [S528]	DCAF5 S528	Cancer_only	1.61	1.60	1.41	0.33

Q76L83 [569-583]	ASXL2 569-583	Cancer_only	-1.21	2.32	1.41	0.54
P54259 1xPhospho [S645]	ATN1 S645	Cancer_only	1.72	2.02	1.41	0.70
P56524 1xPhospho [S467]	HDAC4 S467	Cancer_and_CAF	2.29	1.86	1.41	1.47
Q6KC79 1xPhospho [S280]	NIPBL S280	CAF_only	0.60	1.51	1.41	1.92
P51532 [588-618]	SMARCA4 588-618	CAF_only	0.62	0.75	1.41	1.37
P15408 1xPhospho [S308]	FOSL2 S308	CAF_only	0.90	1.50	1.41	1.34
O75420 [366-401]	GIGYF1 366-401	CAF_only	1.26	0.92	1.40	1.73
Q9BRQ0 1xPhospho [T302]	PYGO2 T302	Cancer_only	1.30	1.85	1.40	0.90
Q9NYI0 1xPhospho [S387]	PSD3 S387	CAF_only	1.27	0.85	1.40	1.65
Q5JRA6 2xPhospho [S408;S/T]	MIA3 S408;S/T	CAF_only	1.42	0.54	1.40	1.70
P50851 1xPhospho [S1118]	LRBA S1118	Cancer_only	1.77	2.58	1.40	1.04
Q14204 [4366-4378]	DYNC1H1 4366-4378	CAF_only	0.74	0.60	1.40	1.48
O60488 1xPhospho [S674]	ACSL4 S674	CAF_only	0.92	0.32	1.39	1.71
O43432 1xPhospho [S232]	EIF4G3 S232	CAF_only	1.35	0.82	1.39	1.47
Q01082 1xPhospho [T2187]	SPTBN1 T2187	CAF_only	1.97	0.89	1.39	2.29
Q96JC9 1xPhospho [S165]	EAF1 S165	CAF_only	0.45	0.36	1.39	1.46
O60216 1xPhospho [S545]	RAD21 S545	Cancer_only	1.31	1.65	1.39	1.13
Q70CQ2 2xPhospho [S1469;S1472]	USP34 S1469;S1472	Cancer_only	1.77	1.72	1.38	0.75
Q7Z6Z7 1xPhospho [S3816]	HUWE1 S3816	Cancer_and_CAF	1.52	2.66	1.38	1.41
Q8TER5 1xPhospho [S226]	ARHGEF40 S226	CAF_only	0.32	0.30	1.38	1.69
O60784 [457-478]	TOM1 457-478	CAF_only	0.06	0.02	1.38	1.82
Q9Y5K6 1xPhospho [S458]	CD2AP S458	CAF_only	3.02	0.89	1.38	1.69
P17029 1xPhospho [S13]	ZKSCAN1 S13	CAF_only	1.32	0.67	1.38	1.70

Q01082 2xPhospho [S2161;S2165]	SPTBN1 S2161;S2165	Cancer_only	1.73	1.30	1.37	1.22
O60271 1xPhospho [S332]	SPAG9 S332	CAF_only	2.61	0.96	1.37	1.32
Q09666 1xPhospho [T4100]	AHNAK T4100	Cancer_only	-1.37	1.97	1.37	0.23
Q9UQL6 1xPhospho [S661]	HDAC5 S661	CAF_only	1.23	0.63	1.36	1.81
Q9UPU7 1xPhospho [S957]	TBC1D2B S957	Cancer_only	1.80	1.39	1.36	0.64
Q9C0B5 2xPhospho [S296;S299]	ZDHHC5 S296;S299	Cancer_only	2.31	2.25	1.36	0.46
Q86YR5 1xPhospho [S492]	GPSM1 S492	CAF_only	1.14	0.66	1.36	1.87
Q06190 1xPhospho [S562]	PPP2R3A S562	CAF_only	1.65	1.20	1.36	1.35
Q9NZW5 1xPhospho [S302]	MPP6 S302	Cancer_only	1.72	1.87	1.36	0.94
Q9HC78 1xPhospho [T211]	ZBTB20 T211	CAF_only	0.19	0.70	1.36	1.97
P22059 2xPhospho [S190;S193]	OSBP S190;S193	CAF_only	1.39	0.80	1.35	1.43
O94913 1xPhospho [T1530]	PCF11 T1530	CAF_only	0.57	0.45	1.35	1.69
Q68DQ2 1xPhospho [S395]	CRYBG3 S395	Cancer_only	1.74	1.39	1.35	0.60
Q9NWS9 1xPhospho [S137]	ZNF446 S137	Cancer_and_CAF	1.00	1.66	1.35	1.35
Q96CV9 1xPhospho [S198]	OPTN S198	Cancer_only	1.26	1.31	1.35	0.44
Q8WYB5 1xPhospho [T1275]	KAT6B T1275	CAF_only	1.56	1.02	1.35	1.32
P46937 1xPhospho [S61]	YAP1 S61	Cancer_and_CAF	2.55	1.34	1.35	1.40
Q9NZT2 1xPhospho [S315]	OGFR S315	CAF_only	1.17	0.70	1.35	1.52
P49321 1xPhospho [S451]	NASP S451	Cancer_only	1.13	1.80	1.35	1.06
Q969T3 1xPhospho [S65]	SNX21 S65	CAF_only	1.69	0.50	1.35	1.54
Q9UNL2 1xPhospho [S11]	SSR3 S11	CAF_only	1.38	1.18	1.35	1.44
Q6ZUT6 1xPhospho [S364]	C15orf52 S364	CAF_only	0.56	0.74	1.34	2.31
Q8IWT3 1xPhospho [S2436]	CUL9 S2436	CAF_only	1.45	1.08	1.34	1.66

Q7Z6Z7 1xPhospho [S2918]	HUWE1 S2918	Cancer_and_CAF	1.82	1.48	1.34	1.96
P54253 1xPhospho [S406]	ATXN1 S406	CAF_only	1.81	1.15	1.34	1.31
P31948 1xPhospho [S481]	STIP1 S481	Cancer_only	1.21	1.44	1.34	0.70
Q76L83 [422-443]	ASXL2 422-443	CAF_only	0.51	0.29	1.33	1.53
O00461 1xPhospho [T640]	GOLIM4 T640	CAF_only	0.30	0.19	1.33	1.39
Q92734 1xPhospho [S50]	TFG S50	CAF_only	0.93	0.37	1.33	1.44
Q08999 1xPhospho [S639]	RBL2 S639	CAF_only	1.95	1.17	1.33	1.79
Q93008 1xPhospho [S1600]	USP9X S1600	Cancer_only	1.27	1.95	1.33	1.09
Q9NW07 2xPhospho [T485;S/T]	ZNF358 T485;S/T	CAF_only	1.29	0.71	1.33	1.46
P46940 1xPhospho [S1443]	IQGAP1 S1443	CAF_only	0.29	0.53	1.33	1.68
O43422 1xPhospho [S141]	PRKRIR S141	CAF_only	0.06	0.04	1.33	1.39
Q8WZ73 2xPhospho [S226;S229]	RFFL S226;S229	CAF_only	0.98	0.41	1.32	1.33
P34910 1xPhospho [S294]	EVI2B S294	Cancer_only	1.84	2.22	1.32	1.06
O15061 1xPhospho [S1107]	SYNM S1107	CAF_only	-0.01	0.02	1.32	1.54
O00461 1xPhospho [S364]	GOLIM4 S364	CAF_only	0.94	0.47	1.32	1.76
P09603 1xPhospho [S533]	CSF1 S533	CAF_only	1.38	0.82	1.32	1.51
O60245 2xPhospho [S982;S989]	PCDH7 S982;S989	CAF_only	1.78	0.46	1.32	2.77
Q9H1E3 1xPhospho [S19]	NUCKS1 S19	CAF_only	0.90	0.73	1.32	1.61
P39880 2xPhospho [S1332;S1333]	CUX1 S1332;S1333	CAF_only	0.78	0.23	1.32	2.02
Q9Y6J0 [2188-2220]	CABIN1 2188-2220	CAF_only	0.45	0.16	1.31	1.89
Q96JP5 [81-100]	ZFP91 81-100	CAF_only	0.67	3.49	1.31	1.41
Q86X10 2xPhospho [S359;T363]	RALGAPB S359;T363	Cancer_only	1.54	1.46	1.31	0.65
O15061 [1140-1169]	SYNM 1140-1169	CAF_only	-1.17	0.25	1.31	1.32

Q5JRA6 1xPhospho [S727]	MIA3 S727	CAF_only	1.48	0.79	1.31	1.50
O94929 1xPhospho [S282]	ABLIM3 S282	Cancer_only	2.92	2.14	1.31	1.23
Q96JK2 1xPhospho [S794]	DCAF5 S794	CAF_only	1.23	0.27	1.31	1.32
Q6UXH1 1xPhospho [S70]	CRELD2 S70	CAF_only	1.57	0.87	1.31	1.65
O00178 2xPhospho [S44;S47]	GTPBP1 S44;S47	CAF_only	0.69	1.09	1.31	2.02
O94915 1xPhospho [S1914]	FRYL S1914	CAF_only	0.95	0.26	1.31	2.55
A0AVT1 1xPhospho [S36]	UBA6 S36	Cancer_and_CAF	1.42	2.11	1.30	1.33
Q14203 1xPhospho [T122]	DCTN1 T122	CAF_only	-0.23	0.06	1.30	1.59
Q9Y6X4 2xPhospho [S378;S379]	FAM169A S378;S379	CAF_only	0.99	1.66	1.30	1.75
O60353 1xPhospho [S519]	FZD6 S519	CAF_only	1.19	0.42	1.30	1.33
Q96EB6 [23-34]	SIRT1 23-34	CAF_only	1.38	1.16	1.30	1.38
Q8WV41 1xPhospho [S169]	SNX33 S169	CAF_only	1.42	0.30	1.30	1.63
Q5UIP0 1xPhospho [T1806]	RIF1 T1806	CAF_only	-0.88	0.42	1.30	1.30
P19532 2xPhospho [S548;S553]	TFE3 S548;S553	CAF_only	0.52	0.62	1.30	1.64
Q8IWW6 1xPhospho [S592]	ARHGAP12 S592	Cancer_only	1.21	2.31	1.29	0.86
P20810 1xPhospho [S373]	CAST S373	CAF_only	0.35	2.10	1.29	1.43
P98082 1xPhospho [S723]	DAB2 S723	CAF_only	-0.16	0.06	1.29	1.72
Q9H1E3 2xPhospho [S75;S79]	NUCKS1 S75;S79	CAF_only	1.20	0.83	1.29	1.79
O00767 1xPhospho [S198]	SCD S198	Cancer_only	1.25	1.90	1.29	1.06
Q96BY7 1xPhospho [S1743]	ATG2B S1743	CAF_only	1.48	0.88	1.28	1.40
Q8NEB9 1xPhospho [S455]	PIK3C3 S455	CAF_only	0.40	0.21	1.28	1.60
P01889 1xPhospho [S343]	HLA-B S343	Cancer_only	1.29	1.60	1.28	1.02
Q53SF7 1xPhospho [S344]	COBLL1 S344	CAF_only	0.57	0.84	1.28	1.39

Q9HCK8 1xPhospho [S1995]	CHD8 S1995	CAF_only	0.40	0.53	1.28	2.16
Q70CQ2 1xPhospho [S3406]	USP34 S3406	Cancer_only	1.35	2.01	1.28	0.67
O76094 1xPhospho [S621]	SRP72 S621	CAF_only	0.52	0.72	1.28	1.91
Q8N7R7 1xPhospho [S122]	CCNYL1 S122	CAF_only	1.09	0.64	1.28	2.11
P41212 1xPhospho [S323]	ETV6 S323	CAF_only	-0.21	0.32	1.27	1.33
Q9HCM1 1xPhospho [S352]	KIAA1551 S352	CAF_only	0.82	0.20	1.27	1.60
Q12802 2xPhospho [S2720;S2728]	AKAP13 S2720;S2728	CAF_only	1.22	0.61	1.27	1.42
Q08499 1xPhospho [S773]	PDE4D S773	Cancer_only	1.42	1.46	1.27	0.46
O43741 1xPhospho [S184]	PRKAB2 S184	Cancer_only	1.25	1.44	1.27	1.02
Q9UH62 2xPhospho [S61;S67]	ARMCX3 S61;S67	CAF_only	0.38	0.55	1.27	3.13
Q96M96 1xPhospho [S702]	FGD4 S702	CAF_only	0.93	0.80	1.26	1.32
Q9NQG5 [149-182]	RPRD1B 149-182	CAF_only	0.89	1.36	1.26	2.10
Q92900 2xPhospho [S1107;S1110]	UPF1 S1107;S1110	CAF_only	-0.46	0.09	1.26	1.55
O75400 1xPhospho [S381]	PRPF40A S381	CAF_only	-0.72	0.31	1.26	1.33
P46821 1xPhospho [S1312]	MAP1B S1312	CAF_only	1.08	1.10	1.26	1.47
P22059 1xPhospho [S240]	OSBP S240	CAF_only	0.44	1.07	1.25	2.09
Q15311 1xPhospho [S62]	RALBP1 S62	CAF_only	1.10	0.62	1.25	1.71
O60447 2xPhospho [S776;S778]	EVI5 S776;S778	Cancer_only	1.68	1.62	1.25	1.04
Q96K76 1xPhospho [S944]	USP47 S944	CAF_only	-0.03	0.02	1.25	1.41
Q96SD1 1xPhospho [S385]	DCLRE1C S385	Cancer_only	1.09	1.79	1.25	0.87
P38432 [481-496]	COIL 481-496	CAF_only	0.30	0.53	1.25	1.64
P0DJ93 2xPhospho [S58;S60]	SMIM13 S58;S60	CAF_only	0.35	1.02	1.24	1.59
P46821 1xPhospho [S2072]	MAP1B S2072	Cancer_only	1.43	2.45	1.24	0.82

P22234 1xPhospho [S107]	PAICS S107	Cancer_only	2.70	1.31	1.24	1.25
Q8NFH8 1xPhospho [S463]	REPS2 S463	CAF_only	1.66	0.63	1.23	1.41
Q9P107 1xPhospho [S480]	GMIP S480	CAF_only	0.40	0.30	1.23	1.85
Q9H6A9 1xPhospho [S287]	PCNXL3 S287	CAF_only	0.43	0.82	1.22	1.94
Q9H8Y5 2xPhospho [S49;S56]	ANKZF1 S49;S56	Cancer_and_CAF	1.86	1.72	1.22	1.44
Q6XZF7 1xPhospho [S1436]	DNMBP S1436	CAF_only	1.28	0.36	1.22	2.25
O60784 1xPhospho [S160]	TOM1 S160	CAF_only	-0.49	0.15	1.22	2.35
Q9Y3Q8 1xPhospho [T229]	TSC22D4 T229	CAF_only	1.51	0.44	1.22	1.31
Q15398 1xPhospho [S67]	DLGAP5 S67	Cancer_only	-1.58	1.77	1.21	0.67
Q14318 1xPhospho [S296]	FKBP8 S296	CAF_only	0.08	0.03	1.21	1.43
Q09666 1xPhospho [S1344]	AHNAK S1344	CAF_only	0.88	0.43	1.21	1.51
Q9P206 2xPhospho [S971;S979]	KIAA1522 S971;S979	CAF_only	-0.69	0.33	1.21	2.27
O75152 1xPhospho [S132]	ZC3H11A S132	CAF_only	0.81	0.26	1.21	1.83
Q9NXH9 1xPhospho [S120]	TRMT1 S120	Cancer_only	1.10	2.27	1.21	0.82
Q92934 1xPhospho [S99]	BAD S99	CAF_only	1.35	0.35	1.21	1.71
P56524 1xPhospho [S632]	HDAC4 S632	Cancer_only	1.18	1.46	1.21	0.87
Q9Y2D5 [110-130]	AKAP2 110-130	CAF_only	0.41	0.20	1.21	1.65
Q8N5C6 1xPhospho [S151]	SRBD1 S151	CAF_only	1.21	0.98	1.21	1.51
P52948 1xPhospho [S612]	NUP98 S612	CAF_only	0.76	1.31	1.20	1.99
A0A0B4J2F2 1xPhospho [S575]	LOC102724428 S575	CAF_only	-0.40	1.49	1.20	1.59
Q5SSJ5 2xPhospho [S441;S446]	HP1BP3 S441;S446	CAF_only	-0.12	0.12	1.20	2.55
Q07021 1xPhospho [S205]	C1QBP S205	CAF_only	-0.56	0.23	1.20	1.40
Q9H8M9 [110-120]	EVA1A 110-120	CAF_only	1.16	0.68	1.20	1.63

P29084 [26-37]	GTF2E2 26-37	Cancer_and_CAF	1.21	1.52	1.20	1.44
P25445 2xPhospho [S209;S212]	FAS S209;S212	Cancer_and_CAF	1.46	2.34	1.20	1.88
Q92887 1xPhospho [S281]	ABCC2 S281	CAF_only	1.93	1.07	1.20	1.53
Q96EV8 2xPhospho [S316;S321]	DTNBP1 S316;S321	CAF_only	0.39	0.88	1.20	1.64
P57682 2xPhospho [S92;S96]	KLF3 S92;S96	CAF_only	-0.18	0.10	1.19	1.75
Q7Z591 1xPhospho [S52]	AKNA S52	Cancer_only	1.80	1.65	1.19	0.45
P51532 1xPhospho [S613]	SMARCA4 S613	CAF_only	0.83	0.55	1.19	1.72
P23193 1xPhospho [S81]	TCEA1 S81	CAF_only	1.02	0.49	1.19	1.39
P32519 1xPhospho [S187]	ELF1 S187	CAF_only	0.11	0.05	1.19	1.44
Q9Y478 [173-199]	PRKAB1 173-199	CAF_only	0.86	0.96	1.18	1.45
Q9UKS7 1xPhospho [S56]	IKZF2 S56	Cancer_only	1.25	1.39	1.18	0.62
Q8TDY2 1xPhospho [S237]	RB1CC1 S237	Cancer_only	1.23	1.60	1.18	0.57
Q9UQ88 2xPhospho [S577;T583]	CDK11A S577;T583	Cancer_only	1.20	1.54	1.18	0.38
Q96RT1 1xPhospho [T485]	ERBB2IP T485	CAF_only	-1.01	0.89	1.18	2.44
Q9H6Z4 1xPhospho [S244]	RANBP3 S244	Cancer_only	2.11	1.42	1.18	1.12
Q92576 1xPhospho [S1722]	PHF3 S1722	CAF_only	1.41	0.45	1.17	1.34
Q86VQ1 1xPhospho [S397]	GLCCI1 S397	CAF_only	0.67	0.49	1.17	1.32
Q6GMV2 2xPhospho [T391;S392]	SMYD5 T391;S392	Cancer_only	1.75	2.22	1.17	0.64
Q659C4 [359-376]	LARP1B 359-376	CAF_only	0.33	0.81	1.17	1.55
O43765 2xPhospho [S77;T81]	SGTA S77;T81	CAF_only	1.08	0.87	1.17	1.36
Q8TD19 1xPhospho [T886]	NEK9 T886	CAF_only	0.72	0.82	1.17	1.37
Q8N2U9 1xPhospho [S110]	PQLC1 S110	CAF_only	-0.10	0.18	1.17	1.76
Q15435 1xPhospho [S27]	PPP1R7 S27	CAF_only	1.01	0.99	1.16	1.31

Q8N350 1xPhospho [S299]	DOS S299	CAF_only	0.88	0.56	1.16	1.35
Q3YEC7 2xPhospho [S640;S641]	RABL6 S640;S641	CAF_only	1.41	1.20	1.16	1.46
Q86VQ1 1xPhospho [S105]	GLCCI1 S105	Cancer_and_CAF	1.14	1.81	1.16	1.64
P35367 1xPhospho [S380]	HRH1 S380	CAF_only	1.19	0.41	1.15	1.48
P42858 1xPhospho [S1864]	HTT S1864	CAF_only	0.82	0.61	1.15	2.40
Q13247 1xPhospho [S45]	SRSF6 S45	CAF_only	1.58	0.92	1.15	1.76
Q9Y4G8 1xPhospho [S1080]	RAPGEF2 S1080	CAF_only	0.31	0.35	1.15	1.75
Q12802 [647-681]	AKAP13 647-681	Cancer_only	1.55	1.52	1.15	0.32
Q9UHR5 [54-88]	SAP30BP 54-88	Cancer_only	1.24	1.52	1.15	1.26
Q13596 2xPhospho [S25;S/T]	SNX1 S25;S/T	Cancer_only	1.14	1.57	1.15	0.32
Q96JJ7 1xPhospho [S415]	TMX3 S415	CAF_only	0.43	0.98	1.14	1.39
Q14C86 1xPhospho [S758]	GAPVD1 S758	CAF_only	2.13	0.45	1.14	1.51
P46821 2xPhospho [S1260;S1265]	MAP1B S1260;S1265	CAF_only	0.98	0.77	1.14	1.95
Q6L8Q7 1xPhospho [S220]	PDE12 S220	Cancer_only	1.65	1.35	1.14	0.82
Q5VTR2 1xPhospho [S138]	RNF20 S138	CAF_only	0.65	0.53	1.14	1.32
P49759 2xPhospho [T138;S140]	CLK1 T138;S140	CAF_only	0.03	0.01	1.14	1.50
Q9H0H5 [161-173]	RACGAP1 161-173	CAF_only	0.06	0.10	1.14	1.64
Q8TED9 1xPhospho [S603]	AFAP1L1 S603	Cancer_only	-3.97	1.40	1.14	0.52
O15530 1xPhospho [S241]	PDPK1 S241	Cancer_only	1.40	1.41	1.13	0.96
Q68DQ2 1xPhospho [S2104]	CRYBG3 S2104	CAF_only	1.59	0.64	1.13	1.34
Q9BRS2 2xPhospho [S21;S22]	RIOK1 S21;S22	CAF_only	0.20	0.32	1.13	1.71
P23634 1xPhospho [S13]	ATP2B4 S13	CAF_only	0.82	0.48	1.13	1.43
Q9Y3R5 1xPhospho [S1085]	DOPEY2 S1085	Cancer_only	1.01	1.32	1.13	0.82

Q9Y6X4 1xPhospho [S447]	FAM169A S447	CAF_only	0.83	0.81	1.13	1.60
P26374 1xPhospho [S166]	CHML S166	Cancer_only	1.55	1.36	1.13	1.24
Q9BPZ7 1xPhospho [S510]	MAPKAP1 S510	CAF_only	-0.66	0.10	1.13	1.53
Q09666 2xPhospho [S5749;S5752]	AHNAK S5749;S5752	Cancer_only	1.57	2.24	1.13	0.88
Q9NXG2 [78-100]	THUMPD1 78-100	CAF_only	2.25	0.63	1.12	1.82
Q8N961 2xPhospho [S698;S701]	ABTB2 S698;S701	CAF_only	0.51	0.60	1.12	1.47
Q08J23 2xPhospho [S743;S751]	NSUN2 S743;S751	Cancer_only	1.08	1.31	1.12	1.20
P41231 2xPhospho [S327;T330]	P2RY2 S327;T330	CAF_only	-0.02	0.01	1.12	1.43
Q92870 1xPhospho [S160]	APBB2 S160	CAF_only	0.24	0.11	1.12	1.72
Q14103 1xPhospho [S190]	HNRNPD S190	CAF_only	0.87	0.53	1.12	1.75
P46821 2xPhospho [S1378;S1389]	MAP1B S1378;S1389	Cancer_only	1.57	1.88	1.11	0.64
O60716 1xPhospho [S320]	CTNND1 S320	Cancer_only	1.34	1.53	1.11	1.19
Q8N573 2xPhospho [S201;S204]	OXR1 S201;S204	CAF_only	0.58	1.20	1.11	2.08
Q9H1E3 1xPhospho [S214]	NUCKS1 S214	CAF_only	1.10	0.90	1.11	3.06
Q5UAW9 [313-335]	GPR157 313-335	CAF_only	0.31	0.93	1.11	1.38
Q96B21 1xPhospho [S272]	TMEM45B S272	CAF_only	1.46	0.41	1.11	1.35
Q8TD19 1xPhospho [S869]	NEK9 S869	CAF_only	0.90	0.45	1.10	1.49
Q9Y6I3 1xPhospho [S420]	EPN1 S420	CAF_only	-0.31	0.63	1.10	1.38
Q9Y4X4 [33-62]	KLF12 33-62	CAF_only	0.89	2.61	1.10	3.58
Q99543 1xPhospho [S47]	DNAJC2 S47	CAF_only	0.91	2.36	1.10	1.90
P18583 1xPhospho [S309]	SON S309	CAF_only	0.68	0.16	1.09	1.55
P54259 2xPhospho [T653;S661]	ATN1 T653;S661	Cancer_only	1.03	1.95	1.09	0.43
Q9Y548 1xPhospho [S47]	YIPF1 S47	CAF_only	0.80	0.38	1.09	1.55

Q7L1V2 1xPhospho [S61]	MON1B S61	Cancer_and_CAF	1.03	1.47	1.09	1.53
Q9Y487 2xPhospho [S695;S704]	ATP6V0A2 S695;S704	CAF_only	1.01	1.10	1.09	1.47
Q86VQ1 1xPhospho [S171]	GLCCI1 S171	CAF_only	0.29	0.46	1.09	1.74
Q9BRD0 2xPhospho [S271;S281]	BUD13 S271;S281	CAF_only	-0.12	0.04	1.09	1.63
O60499 1xPhospho [S134]	STX10 S134	CAF_only	0.20	0.48	1.08	1.42
O43318 1xPhospho [S439]	MAP3K7 S439	CAF_only	0.16	0.12	1.08	1.78
Q9NW13 1xPhospho [S397]	RBM28 S397	CAF_only	-0.14	0.83	1.07	1.46
Q9P2K8 1xPhospho [S1040]	EIF2AK4 S1040	Cancer_only	1.40	1.44	1.07	0.61
P35580 2xPhospho [S1952;S1956]	MYH10 S1952;S1956	Cancer_only	1.07	1.35	1.07	0.67
Q14160 1xPhospho [S1508]	SCRIB S1508	CAF_only	0.24	0.12	1.06	1.51
Q8NFP9 1xPhospho [S2138]	NBEA S2138	CAF_only	1.38	0.46	1.06	1.75
Q99767 1xPhospho [S480]	APBA2 S480	CAF_only	0.69	1.47	1.06	1.45
Q92556 1xPhospho [S344]	ELMO1 S344	CAF_only	1.11	1.29	1.06	1.40
P32780 1xPhospho [S357]	GTF2H1 S357	CAF_only	1.10	1.10	1.06	2.16
Q96EV2 1xPhospho [S41]	RBM33 S41	Cancer_only	1.13	2.02	1.06	0.64
Q9BQK8 2xPhospho [S204;S224]	LPIN3 S204;S224	CAF_only	1.15	0.60	1.05	1.45
Q96JM3 1xPhospho [S427]	CHAMP1 S427	CAF_only	0.41	0.21	1.05	1.38
Q8WXE9 1xPhospho [S342]	STON2 S342	CAF_only	0.24	0.09	1.05	1.98
Q96NY9 1xPhospho [S95]	MUS81 S95	CAF_only	0.52	0.37	1.05	1.75
P0C7T5 1xPhospho [T330]	ATXN1L T330	CAF_only	0.46	0.95	1.04	2.21
Q09666 [5385-5405]	AHNAK 5385-5405	CAF_only	0.53	1.52	1.04	1.75
Q08AE8 1xPhospho [S735]	SPIRE1 S735	CAF_only	0.93	0.57	1.04	1.41
Q8NHQ8 1xPhospho [S105]	RASSF8 S105	CAF_only	0.26	0.06	1.04	1.78

Q13501 2xPhospho [S365;S366]	SQSTM1 S365;S366	CAF_only	0.90	0.17	1.04	1.33
P20020 1xPhospho [S1178]	ATP2B1 S1178	CAF_only	1.10	0.68	1.03	1.84
Q6UB98 1xPhospho [S149]	ANKRD12 S149	Cancer_only	1.02	1.75	1.03	0.32
Q96JG6 1xPhospho [S559]	CCDC132 S559	Cancer_only	1.36	1.35	1.03	0.58
Q08AE8 1xPhospho [S678]	SPIRE1 S678	Cancer_only	1.54	1.63	1.03	1.08
Q99567 1xPhospho [S35]	NUP88 S35	CAF_only	0.95	0.35	1.03	1.46
Q5JSH3 [574-596]	WDR44 574-596	Cancer_only	1.44	1.35	1.03	0.62
Q9UBC2 1xPhospho [S717]	EPS15L1 S717	CAF_only	-0.10	1.38	1.03	1.65
Q9UPQ0 1xPhospho [S303]	LIMCH1 S303	Cancer_only	-1.28	1.41	1.03	1.06
P52272 1xPhospho [S637]	HNRNPM S637	CAF_only	0.36	0.25	1.03	1.86
Q9Y6Q9 1xPhospho [S857]	NCOA3 S857	Cancer_only	1.24	1.44	1.02	0.54
Q9HBL0 [1339-1378]	TNS1 1339-1378	Cancer_only	1.78	1.44	1.02	0.13
Q5T4S7 1xPhospho [T2724]	UBR4 T2724	Cancer_only	1.50	1.32	1.02	0.71
Q96T58 1xPhospho [S1268]	SPEN S1268	CAF_only	0.33	0.39	1.02	1.63
Q9Y4K1 2xPhospho [T525;S533]	AIM1 T525;S533	Cancer_only	1.01	2.04	1.02	0.72
P78314 1xPhospho [S416]	SH3BP2 S416	CAF_only	0.52	0.44	1.01	1.60
Q15293 1xPhospho [S80]	RCN1 S80	CAF_only	0.66	0.70	1.01	1.51
Q9ULE0 1xPhospho [S957]	WWC3 S957	CAF_only	1.42	0.72	1.01	1.43
Q86YS7 1xPhospho [S817]	C2CD5 S817	Cancer_only	1.25	2.34	1.01	0.59
Q9Y6D5 1xPhospho [S277]	ARFGEF2 S277	CAF_only	0.68	0.32	1.01	1.58
Q96AQ6 1xPhospho [S67]	PBXIP1 S67	CAF_only	-0.25	0.11	1.01	1.51
P49321 [418-442]	NASP 418-442	CAF_only	0.53	0.32	1.01	1.70
Q8IYB7 1xPhospho [S875]	DIS3L2 S875	Cancer_only	1.52	1.60	1.01	0.70

Q13207 1xPhospho [S653]	TBX2 S653	CAF_only	0.73	0.20	1.01	1.36
P35579 1xPhospho [S1714]	MYH9 S1714	Cancer_only	1.08	1.38	1.00	1.01
Q8TBN0 1xPhospho [S179]	RAB3IL1 S179	CAF_only	0.62	0.19	1.00	1.62
P54259 1xPhospho [S112]	ATN1 S112	Cancer_only	1.26	1.77	1.00	0.30
Q8NA72 [101-111]	POC5 101-111	Cancer_only	1.01	1.89	0.99	1.13
O95772 [196-224]	STARD3NL 196-224	Cancer_only	2.38	2.56	0.99	1.38
Q9Y2D9 1xPhospho [S57]	ZNF652 S57	Cancer_only	1.21	1.56	0.99	1.28
Q13813 1xPhospho [S1029]	SPTAN1 S1029	Cancer_only	2.74	2.06	0.98	0.42
Q14814 1xPhospho [S231]	MEF2D S231	Cancer_only	1.66	1.95	0.97	0.29
Q9P260 1xPhospho [S244]	KIAA1468 S244	Cancer_only	1.67	1.82	0.97	0.46
Q8N1G4 1xPhospho [S520]	LRRC47 S520	Cancer_only	1.11	1.76	0.96	0.55
Q709C8 [859-890]	VPS13C 859-890	Cancer_only	1.73	1.51	0.95	0.54
P55196 1xPhospho [S216]	MLLT4 S216	Cancer_only	1.32	1.56	0.95	1.09
P16070 1xPhospho [S706]	CD44 S706	Cancer_only	1.96	1.31	0.94	0.69
Q8NCF5 [324-351]	NFATC2IP 324-351	Cancer_only	2.13	1.97	0.94	0.49
O60271 1xPhospho [S109]	SPAG9 S109	Cancer_only	1.94	1.75	0.94	0.99
Q9H4E7 1xPhospho [S597]	DEF6 S597	Cancer_only	1.19	3.43	0.93	1.49
Q86VQ1 2xPhospho [S396;S398]	GLCCI1 S396;S398	Cancer_only	1.53	1.68	0.93	1.10
O94979 2xPhospho [S527;S532]	SEC31A S527;S532	Cancer_only	1.63	1.37	0.93	0.31
Q3SXY8 [359-387]	ARL13B 359-387	Cancer_only	1.07	1.31	0.93	1.12
Q6P1N0 1xPhospho [T92]	CC2D1A T92	Cancer_only	1.67	1.44	0.92	0.43
P46527 1xPhospho [S178]	CDKN1B S178	Cancer_only	1.42	1.33	0.92	1.09
P09651 2xPhospho [S4;S6]	HNRNPA1 S4;S6	Cancer_only	1.97	1.83	0.91	0.30

P50851 1xPhospho [S10]	LRBA S10	Cancer_only	1.01	1.33	0.91	1.11
P10398 1xPhospho [S214]	ARAF S214	Cancer_only	1.44	1.50	0.91	0.07
Q8IWZ3 1xPhospho [S1591]	ANKHD1 S1591	Cancer_only	1.60	1.46	0.91	2.42
Q3YEC7 2xPhospho [S425;S427]	RABL6 S425;S427	Cancer_only	1.33	1.37	0.90	0.46
Q5VZK9 1xPhospho [S1360]	LRRC16A S1360	Cancer_only	1.43	1.57	0.90	0.74
Q14558 1xPhospho [S215]	PRPSAP1 S215	Cancer_only	1.04	1.95	0.89	0.70
Q96EP9 1xPhospho [S436]	SLC10A4 S436	Cancer_only	1.92	2.01	0.88	0.80
Q9H4A3 1xPhospho [S1978]	WNK1 S1978	Cancer_only	1.25	1.60	0.88	0.39
Q8TD55 1xPhospho [S273]	PLEKHO2 S273	Cancer_only	1.32	1.67	0.88	0.23
Q7Z7N9 2xPhospho [S205;S206]	TMEM179B S205;S206	Cancer_only	1.13	1.55	0.88	0.58
P49321 2xPhospho [T477;S480]	NASP T477;S480	Cancer_only	1.28	1.74	0.88	0.11
Q9H1E3 2xPhospho [T202;S204]	NUCKS1 T202;S204	Cancer_only	1.12	1.95	0.87	0.72
Q13409 1xPhospho [S51]	DYNC1I2 S51	Cancer_only	1.57	1.30	0.87	1.03
Q14814 1xPhospho [S450]	MEF2D S450	Cancer_only	2.46	1.49	0.87	0.73
Q9C0D5 2xPhospho [S207;S214]	TANC1 S207;S214	Cancer_only	1.88	1.31	0.86	1.03
Q4V328 1xPhospho [S692]	GRIPAP1 S692	Cancer_only	1.69	1.49	0.86	0.61
O75379 1xPhospho [S17]	VAMP4 S17	Cancer_only	1.56	1.91	0.85	0.36
Q9H0F6 [155-181]	SHARPIN 155-181	Cancer_only	1.13	2.25	0.85	0.76
Q86TN4 1xPhospho [S240]	TRPT1 S240	Cancer_only	1.02	2.07	0.85	1.74
Q6GYQ0 2xPhospho [S734;S740]	RALGAPA1 S734;S740	Cancer_only	1.10	1.39	0.84	0.97
Q14C86 [755-781]	GAPVD1 755-781	Cancer_only	1.04	2.01	0.84	0.66
Q9NZT2 1xPhospho [S349]	OGFR S349	Cancer_only	1.13	2.23	0.84	0.86
O95685 2xPhospho [S74;S]	PPP1R3D S74;S	Cancer_only	1.67	1.94	0.83	0.84

Q02952 [1149-1188]	AKAP12 1149-1188	Cancer_only	1.07	1.66	0.83	0.17
Q96KN1 2xPhospho [T289;S/T]	FAM84B T289;S/T	Cancer_only	1.22	2.12	0.82	1.41
O94929 1xPhospho [S504]	ABLIM3 S504	Cancer_only	1.43	1.34	0.81	0.83
O00499 1xPhospho [S303]	BIN1 S303	Cancer_only	1.25	2.43	0.80	0.56
O60927 [69-92]	PPP1R11 69-92	Cancer_only	1.68	1.75	0.79	0.28
Q8ND56 1xPhospho [S216]	LSM14A S216	Cancer_only	1.01	1.33	0.76	0.47
Q9C0B5 1xPhospho [S299]	ZDHHC5 S299	Cancer_only	1.23	1.55	0.76	0.97
Q4G0J3 1xPhospho [S337]	LARP7 S337	Cancer_only	1.04	1.41	0.75	0.59
P21333 1xPhospho [S481]	FLNA S481	Cancer_only	1.55	1.49	0.75	0.42
Q8IWW6 2xPhospho [S213;S215]	ARHGAP12 S213;S215	Cancer_only	1.31	1.40	0.73	1.48
Q16649 1xPhospho [S286]	NFIL3 S286	Cancer_only	1.18	1.43	0.73	0.89
Q9C040 1xPhospho [S428]	TRIM2 S428	Cancer_only	1.55	1.33	0.71	1.31
P40425 1xPhospho [S330]	PBX2 S330	Cancer_only	-1.31	1.35	0.70	0.39
Q9UMZ2 1xPhospho [S1075]	SYNRG S1075	Cancer_only	1.18	1.79	0.70	0.78
Q92729 2xPhospho [S863;T867]	PTPRU S863;T867	Cancer_only	2.23	1.49	0.70	0.48
P27540 1xPhospho [S77]	ARNT S77	Cancer_only	1.23	2.40	0.69	0.90
Q6BDS2 1xPhospho [S1106]	UHRF1BP1 S1106	Cancer_only	1.99	1.78	0.69	0.34
Q13045 1xPhospho [S856]	FLII S856	Cancer_only	1.53	1.74	0.68	0.50
Q9UKJ3 2xPhospho [S1033;S1035]	GPATCH8 S1033;S1035	Cancer_only	1.45	1.54	0.68	0.32
Q99996 2xPhospho [S144;S/T/Y]	AKAP9 S144;S/T/Y	Cancer_only	1.48	1.43	0.67	0.26
Q13283 2xPhospho [T143;S149]	G3BP1 T143;S149	Cancer_only	1.13	1.41	0.67	0.99
Q05397 1xPhospho [S910]	PTK2 S910	Cancer_only	1.62	1.40	0.67	0.48
A6NIH7 1xPhospho [S119]	UNC119B S119	Cancer_only	1.58	1.58	0.67	0.15

Q9UK32 1xPhospho [S232]	RPS6KA6 S232	Cancer_only	1.05	1.38	0.66	0.65
P51812 1xPhospho [S227]	RPS6KA3 S227	Cancer_only	1.05	1.38	0.66	0.65
Q15418 1xPhospho [S221]	RPS6KA1 S221	Cancer_only	1.05	1.38	0.66	0.65
O95359 2xPhospho [S2317;S2321]	TACC2 S2317;S2321	Cancer_only	1.25	1.47	0.66	0.80
Q08334 1xPhospho [S261]	IL10RB S261	Cancer_only	1.07	1.51	0.66	1.60
P21980 1xPhospho [S450]	TGM2 S450	Cancer_only	1.68	3.56	0.64	0.37
Q8TEQ0 1xPhospho [S810]	SNX29 S810	Cancer_only	1.13	1.77	0.63	0.31
Q96PN7 1xPhospho [S758]	TRERF1 S758	Cancer_only	1.16	1.35	0.62	0.38
O00571 1xPhospho [S594]	DDX3X S594	Cancer_only	-1.66	1.43	0.59	0.51
Q16513 1xPhospho [T816]	PKN2 T816	Cancer_only	1.30	1.43	0.59	0.44
Q8IXQ3 1xPhospho [S76]	C9orf40 S76	Cancer_only	1.49	1.91	0.57	0.38
P51957 1xPhospho [S677]	NEK4 S677	Cancer_only	1.42	1.67	0.57	0.49
Q9Y6D6 1xPhospho [S52]	ARFGEF1 S52	Cancer_only	1.06	1.38	0.56	0.60
Q9UEW8 1xPhospho [T354]	STK39 T354	Cancer_only	1.78	2.73	0.56	0.41
Q8TE76 1xPhospho [S465]	MORC4 S465	Cancer_only	1.25	1.47	0.56	0.32
P32241 1xPhospho [S441]	VIPR1 S441	Cancer_only	2.84	2.21	0.55	0.26
Q8IYB3 1xPhospho [S653]	SRRM1 S653	Cancer_only	1.25	2.27	0.54	0.46
O14613 1xPhospho [S31]	CDC42EP2 S31	Cancer_only	1.48	1.34	0.54	0.11
Q8NDI1 2xPhospho [S436;T/S]	EHBP1 S436;T/S	Cancer_only	1.18	2.08	0.53	0.32
P49589 1xPhospho [T36]	CARS T36	Cancer_only	1.92	1.80	0.53	0.41
Q7Z7N9 1xPhospho [S214]	TMEM179B S214	Cancer_only	1.00	1.65	0.51	0.90
P16144 1xPhospho [T1530]	ITGB4 T1530	Cancer_only	1.10	1.90	0.48	0.25
P51784 1xPhospho [S948]	USP11 S948	Cancer_only	1.05	2.07	0.47	0.12

Q09666 [4516-4529]	AHNAK 4516-4529	Cancer_only	2.24	1.47	0.47	0.14
Q13144 1xPhospho [S544]	EIF2B5 S544	Cancer_only	1.55	1.61	0.47	0.83
Q70CQ2 2xPhospho [T3381;S3386]	USP34 T3381;S3386	Cancer_only	1.43	1.34	0.47	1.52
Q12802 [772-798]	AKAP13 772-798	Cancer_only	1.07	1.38	0.47	0.16
Q92945 1xPhospho [S193]	KHSRP S193	Cancer_only	-1.09	1.48	0.46	0.41
Q9BVS4 1xPhospho [S390]	RIOK2 S390	Cancer_only	2.04	1.83	0.45	0.10
Q96QD9 1xPhospho [S23]	FYTTD1 S23	Cancer_only	1.27	1.97	0.45	0.61
O15013 [387-402]	ARHGEF10 387-402	Cancer_only	1.45	1.39	0.45	1.17
Q9UKY7 [100-117]	CDV3 100-117	Cancer_only	1.44	1.38	0.43	0.18
Q92890 1xPhospho [S299]	UFD1L S299	Cancer_only	1.89	2.06	0.41	0.15
O94979 [520-548]	SEC31A 520-548	Cancer_only	1.24	1.31	0.41	0.50
Q13470 2xPhospho [S502;S505]	TNK1 S502;S505	Cancer_only	1.43	1.85	0.41	0.17
O43294 1xPhospho [S68]	TGFB1I1 S68	Cancer_only	1.24	2.20	0.41	1.00
Q9BX40 1xPhospho [S165]	LSM14B S165	Cancer_only	2.14	1.63	0.40	0.11
P29692 2xPhospho [T147;S162]	EEF1D T147;S162	Cancer_only	1.09	2.24	0.40	0.45
Q8WUF5 1xPhospho [S134]	PPP1R13L S134	Cancer_only	-1.28	1.85	0.39	0.19
P50548 2xPhospho [S431;T/S]	ERF S431;T/S	Cancer_only	1.10	1.42	0.39	0.21
P41227 2xPhospho [S235;S/T]	NAA10 S235;S/T	Cancer_only	1.37	1.96	0.39	0.43
O15014 2xPhospho [S467;S470]	ZNF609 S467;S470	Cancer_only	-1.04	1.92	0.39	1.53
Q15907 1xPhospho [S42]	RAB11B S42	Cancer_only	-1.46	1.34	0.39	0.16
Q3YEC7 1xPhospho [S492]	RABL6 S492	Cancer_only	1.58	1.68	0.38	1.25
Q8NI08 2xPhospho [S500;S502]	NCOA7 S500;S502	Cancer_only	1.10	1.39	0.38	1.03
A1L390 2xPhospho [S1154;S/T]	PLEKHG3 S1154;S/T	Cancer_only	-2.29	2.05	0.37	0.08

Q9UHF7 1xPhospho [S803]	TRPS1 S803	Cancer_only	1.04	1.89	0.36	0.15
Q9Y2K5 [141-163]	R3HDM2 141-163	Cancer_only	1.12	2.07	0.35	0.14
Q15032 [140-162]	R3HDM1 140-162	Cancer_only	1.12	2.07	0.35	0.14
P48634 2xPhospho [S761;S764]	PRRC2A S761;S764	Cancer_only	-1.65	1.65	0.35	0.10
Q9H1E3 1xPhospho [S223]	NUCKS1 S223	Cancer_only	2.03	1.57	0.32	0.29
P62995 1xPhospho [S264]	TRA2B S264	Cancer_only	2.13	1.88	0.32	0.36
Q13595 1xPhospho [S260]	TRA2A S260	Cancer_only	2.13	1.88	0.32	0.36
Q96B97 1xPhospho [S587]	SH3KBP1 S587	Cancer_only	1.06	1.39	0.31	0.40
O94906 1xPhospho [T266]	PRPF6 T266	Cancer_only	1.96	1.75	0.28	0.05
Q53SF7 1xPhospho [S911]	COBLL1 S911	Cancer_only	1.12	1.77	0.28	0.09
Q9H4L7 2xPhospho [S34;S37]	SMARCAD1 S34;S37	Cancer_only	1.58	2.30	0.26	0.08
P53999 1xPhospho [S118]	SUB1 S118	Cancer_only	1.29	1.51	0.25	0.48
Q96RU3 [496-533]	FNBP1 496-533	Cancer_only	2.99	1.63	0.24	0.09
Q9UET6 1xPhospho [S271]	FTSJ1 S271	Cancer_only	1.38	1.66	0.23	0.18
Q96QT4 1xPhospho [S1569]	TRPM7 S1569	Cancer_only	1.10	1.41	0.23	0.14
Q9UJA5 1xPhospho [S288]	TRMT6 S288	Cancer_only	1.08	2.02	0.23	0.47
Q5T5C0 1xPhospho [S692]	STXBP5 S692	Cancer_only	-1.16	2.93	0.20	0.09
Q9GZZ9 1xPhospho [S358]	UBA5 S358	Cancer_only	2.24	1.32	0.17	0.05
Q9NYV4 1xPhospho [S133]	CDK12 S133	Cancer_only	-1.43	1.48	0.16	0.74
P35222 2xPhospho [S675;T/S]	CTNNB1 S675;T/S	Cancer_only	-1.60	1.78	0.15	0.09
P27987 1xPhospho [T33]	ITPKB T33	Cancer_only	-2.17	1.38	0.14	0.03
Q9BYX4 1xPhospho [S301]	IFIH1 S301	Cancer_only	1.08	1.44	0.14	0.09
O94929 2xPhospho [S472;S493]	ABLIM3 S472;S493	Cancer_only	1.44	1.71	0.13	0.05

Q96HE9 1xPhospho [S242]	PRR11 S242	Cancer_only	-1.34	1.36	0.12	0.08
Q96N67 1xPhospho [S1438]	DOCK7 S1438	Cancer_only	1.54	1.51	0.11	0.25
Q8N1F8 1xPhospho [S387]	STK11IP S387	Cancer_only	-1.19	2.84	0.10	0.04
Q8N9N8 2xPhospho [S136;S137]	EIF1AD S136;S137	Cancer_only	1.38	1.61	0.10	0.19
Q92539 1xPhospho [S243]	LPIN2 S243	Cancer_only	1.28	1.44	0.10	0.04
Q8N3V7 2xPhospho [S580;S591]	SYNPO S580;S591	Cancer_only	3.19	1.59	0.10	0.09
Q6P2E9 2xPhospho [S734;T/S]	EDC4 S734;T/S	Cancer_only	1.87	1.82	0.07	0.06
Q9NUY8 1xPhospho [S553]	TBC1D23 S553	Cancer_only	1.16	1.83	0.07	0.09
Q9C0B0 1xPhospho [S385]	UNK S385	Cancer_only	1.15	1.61	0.06	0.10
O95251 1xPhospho [S124]	KAT7 S124	Cancer_only	-1.68	1.68	0.05	0.01
Q4G0J3 2xPhospho [S298;S300]	LARP7 S298;S300	Cancer_only	-1.44	1.82	0.03	0.06
Q9NR09 1xPhospho [S2955]	BIRC6 S2955	Cancer_only	1.04	2.41	0.02	0.15
P38646 [86-99]	HSPA9 86-99	Cancer_only	-1.35	1.37	0.01	0.01
Q6N043 1xPhospho [S179]	ZNF280D S179	Cancer_only	-1.65	1.41	0.01	0.02
Q8TED9 [177-205]	AFAP1L1 177-205	Cancer_only	1.62	2.89	0.01	0.00
Q02446 1xPhospho [S136]	SP4 S136	Cancer_only	1.40	1.36	-0.01	0.00
Q7Z2Z1 1xPhospho [T969]	TICRR T969	Cancer_only	-1.15	1.42	-0.01	0.02
Q765P7 1xPhospho [S569]	MTSS1L S569	Cancer_only	-1.24	1.37	-0.03	0.01
Q9ULV3 [344-359]	CIZ1 344-359	Cancer_only	1.11	2.45	-0.04	0.02
Q13177 1xPhospho [S132]	PAK2 S132	Cancer_only	1.10	1.53	-0.04	0.11
Q9H9J4 1xPhospho [S1226]	USP42 S1226	Cancer_only	-1.19	2.15	-0.05	0.16
Q13164 1xPhospho [S731]	MAPK7 S731	Cancer_only	-2.44	4.26	-0.07	0.02
P19021 [941-973]	PAM 941-973	Cancer_only	2.71	1.96	-0.07	0.03

Q8NB49 1xPhospho [S1126]	ATP11C S1126	Cancer_only	-1.90	1.31	-0.08	0.17
Q9BVS4 1xPhospho [S350]	RIOK2 S350	Cancer_only	1.58	2.29	-0.08	0.37
Q7Z4H7 1xPhospho [S908]	HAUS6 S908	Cancer_only	1.23	2.17	-0.08	0.49
Q13637 1xPhospho [S152]	RAB32 S152	Cancer_only	-1.38	1.32	-0.09	0.09
A5YM69 1xPhospho [S184]	ARHGEF35 S184	Cancer_only	2.00	1.46	-0.10	0.34
Q96RV3 1xPhospho [S680]	PCNX S680	Cancer_only	1.15	1.54	-0.10	0.03
Q96A19 [527-550]	CCDC102A 527-550	Cancer_only	-1.30	1.43	-0.11	0.15
P85037 2xPhospho [S441;S445]	FOXK1 S441;S445	Cancer_only	1.23	1.40	-0.11	0.66
Q6IPR3 [229-259]	TYW3 229-259	Cancer_only	1.64	1.48	-0.13	1.06
Q9NVC3 1xPhospho [S28]	SLC38A7 S28	Cancer_only	-1.33	1.84	-0.13	0.05
Q8NFH5 [270-282]	NUP35 270-282	Cancer_only	-1.58	1.55	-0.14	0.26
Q9BRG2 1xPhospho [S125]	SH2D3A S125	Cancer_only	-1.23	1.48	-0.15	0.03
P68363 1xPhospho [S439]	TUBA1B S439	Cancer_only	-1.48	2.42	-0.16	0.18
O75494 1xPhospho [S213]	SRSF10 S213	Cancer_only	-1.31	1.70	-0.16	0.15
Q8TCN5 1xPhospho [S404]	ZNF507 S404	Cancer_only	-1.36	2.18	-0.19	0.14
Q9HCD6 1xPhospho [S1530]	TANC2 S1530	Cancer_only	1.44	1.54	-0.21	0.22
Q9BXF6 2xPhospho [S393;S]	RAB11FIP5 S393;S	Cancer_only	1.01	1.52	-0.22	0.08
Q7Z5J4 [1245-1271]	RAI1 1245-1271	Cancer_only	-2.86	1.68	-0.22	0.22
Q14151 1xPhospho [S513]	SAFB2 S513	Cancer_only	-1.32	1.60	-0.23	2.65
P28482 1xPhospho [Y187]	MAPK1 Y187	Cancer_only	-1.58	2.05	-0.25	0.05
Q86VM9 1xPhospho [T796]	ZC3H18 T796	Cancer_only	-1.12	1.75	-0.25	0.61
Q8WUA2 1xPhospho [S204]	PPIL4 S204	Cancer_only	-1.15	1.97	-0.26	0.23
Q13017 [971-1007]	ARHGAP5 971-1007	Cancer_only	1.72	1.44	-0.26	1.22

Q5TDH0 [111-139]	DDI2 111-139	Cancer_only	1.47	1.92	-0.27	0.80
Q15464 1xPhospho [S211]	SHB S211	Cancer_only	-1.01	1.53	-0.30	0.54
Q86SQ0 2xPhospho [S489;S501]	PHLDB2 S489;S501	Cancer_only	-1.30	1.33	-0.30	0.64
Q15424 2xPhospho [S614;S617]	SAFB S614;S617	Cancer_only	-2.27	1.80	-0.31	0.63
Q14676 2xPhospho [S495;S498]	MDC1 S495;S498	Cancer_only	-1.20	1.87	-0.31	0.25
Q9Y5M8 1xPhospho [S257]	SRPRB S257	Cancer_only	-1.41	1.72	-0.32	1.07
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S393]	MAP1A S393	Cancer_only	-1.35	1.59	-0.33	0.44
P78559 1xPhospho [S155]	MAP1A S155	Cancer_only	-1.35	1.59	-0.33	0.44
Q8NAN2 2xPhospho [S122;S129]	FAM73A S122;S129	Cancer_only	1.40	2.00	-0.34	0.18
Q8WVS4 1xPhospho [S247]	WDR60 S247	Cancer_only	1.43	1.61	-0.35	0.32
Q01094 1xPhospho [S375]	E2F1 S375	Cancer_only	1.57	1.42	-0.37	0.19
Q14207 1xPhospho [S1296]	NPAT S1296	Cancer_only	-2.11	1.30	-0.38	0.70
Q5FWF5 1xPhospho [S288]	ESCO1 S288	Cancer_only	-1.39	2.29	-0.38	0.17
P31943 1xPhospho [S161]	HNRNPH1 S161	Cancer_only	-1.05	1.62	-0.38	0.08
Q9P2M4 1xPhospho [S91]	TBC1D14 S91	Cancer_only	-1.14	1.47	-0.38	0.80
Q13049 1xPhospho [T257]	TRIM32 T257	Cancer_only	1.96	1.91	-0.39	0.16
Q13105 [780-803]	ZBTB17 780-803	Cancer_only	-1.74	1.40	-0.41	0.18
O43491 1xPhospho [S598]	EPB41L2 S598	Cancer_only	-1.35	1.45	-0.41	0.41
P38159 1xPhospho [S314]	RBMX S314	Cancer_only	-1.05	1.55	-0.44	0.81
Q96E39 1xPhospho [S314]	RBMXL1 S314	Cancer_only	-1.05	1.55	-0.44	0.81
P54792 2xPhospho [S194;S/T]	DVL1P1 S194;S/T	Cancer_only	1.50	1.38	-0.44	0.18
Q96DN6 1xPhospho [S975]	MBD6 S975	Cancer_only	-1.12	1.35	-0.44	1.43

Q99590 1xPhospho [S473]	SCAF11 S473	Cancer_only	-1.57	2.57	-0.46	0.28
O00139 1xPhospho [T78]	KIF2A T78	Cancer_only	2.29	1.36	-0.46	1.07
Q8TBP0 1xPhospho [S155]	TBC1D16 S155	Cancer_only	1.12	2.75	-0.48	0.11
Q8NCF5 2xPhospho [S168;S170]	NFATC2IP S168;S170	Cancer_only	-2.45	2.17	-0.52	0.13
Q9UQ35 1xPhospho [S1164]	SRRM2 S1164	Cancer_only	-1.07	1.45	-0.56	0.26
O60281 1xPhospho [S855]	ZNF292 S855	Cancer_only	1.02	1.72	-0.56	0.33
C9J069 2xPhospho [S509;S512]	C9orf172 S509;S512	Cancer_only	1.54	1.64	-0.57	0.24
P08670 2xPhospho [S22;S26]	VIM S22;S26	Cancer_only	-2.17	1.70	-0.57	0.26
Q99569 1xPhospho [S406]	PKP4 S406	Cancer_only	-1.83	1.33	-0.57	0.54
Q8TEW0 1xPhospho [S474]	PARD3 S474	Cancer_only	-1.54	1.83	-0.58	0.32
Q3KP31 1xPhospho [S366]	ZNF791 S366	Cancer_only	-1.53	2.44	-0.58	1.02
Q9BYG5 1xPhospho [S11]	PARD6B S11	Cancer_only	-1.07	1.38	-0.58	0.37
Q9Y5A7 1xPhospho [S489]	NUB1 S489	Cancer_only	-1.41	1.68	-0.62	0.17
Q9HDC5 2xPhospho [T448;S452]	JPH1 T448;S452	Cancer_only	-1.04	1.51	-0.63	0.46
Q9NPG3 2xPhospho [S336;S338]	UBN1 S336;S338	Cancer_only	-1.69	1.74	-0.63	0.70
P23588 1xPhospho [S445]	EIF4B S445	Cancer_only	1.35	1.52	-0.63	0.63
Q92502 1xPhospho [S235]	STARD8 S235	Cancer_only	-1.40	1.65	-0.64	0.85
Q9NYZ3 1xPhospho [S138]	GTSE1 S138	Cancer_only	-1.20	1.91	-0.72	1.45
Q6W2J9 1xPhospho [S1139]	BCOR S1139	Cancer_only	-1.51	1.73	-0.76	0.60
Q8TBE0 1xPhospho [S101]	BAHD1 S101	Cancer_only	-1.16	1.47	-0.77	1.00
P55072 1xPhospho [S13]	VCP S13	Cancer_only	-1.32	1.87	-0.77	0.66
Q02952 1xPhospho [S483]	AKAP12 S483	Cancer_only	-1.13	1.52	-0.79	0.49
Q9UQR0 [593-599]	SCML2 593-599	Cancer_only	-1.26	1.53	-0.80	0.75

P35612 1xPhospho [S617]	ADD2 S617	Cancer_only	-1.08	1.85	-0.80	0.34
Q9BXK1 1xPhospho [T152]	KLF16 T152	Cancer_only	-1.45	1.61	-0.83	0.31
Q9BRD0 2xPhospho [T135;S139]	BUD13 T135;S139	Cancer_only	-1.32	2.23	-0.85	0.74
Q3B726 1xPhospho [S328]	TWISTNB S328	Cancer_only	-1.30	3.41	-0.87	0.93
Q9NS56 1xPhospho [S98]	TOPORS S98	Cancer_only	-1.01	1.31	-0.87	0.63
Q86V48 1xPhospho [S639]	LUZP1 S639	Cancer_only	-1.90	1.50	-0.90	0.71
Q5QJE6 1xPhospho [S330]	DNTTIP2 S330	Cancer_only	-1.97	1.36	-0.90	0.46
Q02952 1xPhospho [S544]	AKAP12 S544	Cancer_only	-1.45	1.33	-0.92	0.37
Q86TM6 1xPhospho [S613]	SYVN1 S613	Cancer_only	-1.27	1.55	-0.92	1.02
Q9ULI3 1xPhospho [S1332]	HEG1 S1332	Cancer_only	-1.64	1.39	-0.93	0.70
Q07157 1xPhospho [S241]	TJP1 S241	Cancer_only	-1.23	1.33	-0.93	1.33
O96018 1xPhospho [T32]	APBA3 T32	Cancer_only	-1.30	1.40	-0.94	0.46
Q7KZF4 1xPhospho [S645]	SND1 S645	Cancer_only	-1.83	1.50	-0.95	0.93
P49750 1xPhospho [S2035]	YLPM1 S2035	Cancer_only	-1.06	1.70	-0.96	0.31
Q9BUL9 1xPhospho [S182]	RPP25 S182	Cancer_only	-1.38	2.73	-0.97	1.70
Q96DF8 2xPhospho [S391;S395]	DGCR14 S391;S395	Cancer_only	-1.11	3.97	-0.98	0.93
O75376 1xPhospho [S1196]	NCOR1 S1196	Cancer_only	-1.19	1.38	-0.98	0.52
Q8N392 1xPhospho [S66]	ARHGAP18 S66	Cancer_only	1.26	1.57	-0.98	0.75
P12931 1xPhospho [S75]	SRC S75	Cancer_only	-1.21	1.35	-0.99	0.66
Q9H9J4 1xPhospho [S1247]	USP42 S1247	Cancer_only	-1.85	1.65	-0.99	0.99
Q9NXV6 [129-142]	CDKN2AIP 129-142	Cancer_only	-1.13	1.75	-1.01	0.42
Q9BVI0 1xPhospho [S415]	PHF20 S415	CAF_only	-2.62	0.96	-1.01	1.37
Q8NHM5 1xPhospho [S975]	KDM2B S975	CAF_only	-0.24	0.09	-1.01	1.69

Q9UNK0 1xPhospho [S160]	STX8 S160	CAF_only	1.11	0.40	-1.02	1.71
Q9H2P0 [871-902]	ADNP 871-902	CAF_only	-1.02	0.86	-1.02	2.03
Q15911 1xPhospho [S2230]	ZFHX3 S2230	CAF_only	-0.65	1.40	-1.02	1.45
P41227 2xPhospho [S213;S216]	NAA10 S213;S216	CAF_only	-0.12	0.22	-1.02	1.53
P07237 1xPhospho [S88]	P4HB S88	CAF_only	-0.68	0.49	-1.03	1.44
Q9H8V3 1xPhospho [S15]	ECT2 S15	CAF_only	-1.56	0.84	-1.03	3.76
Q5UIP0 1xPhospho [S1046]	RIF1 S1046	Cancer_only	-1.45	1.51	-1.03	0.22
P12931 2xPhospho [S70;S75]	SRC S70;S75	Cancer_only	-2.04	1.66	-1.03	1.18
Q12888 2xPhospho [S784;S786]	TP53BP1 S784;S786	Cancer_only	-1.34	1.33	-1.03	0.80
P25054 1xPhospho [S780]	APC S780	CAF_only	-0.51	0.47	-1.03	1.49
Q5TB30 1xPhospho [S110]	DEPDC1 S110	CAF_only	-0.51	0.50	-1.03	1.55
P55042 1xPhospho [S39]	RRAD S39	CAF_only	-0.98	0.42	-1.03	1.53
Q7Z6E9 1xPhospho [S1221]	RBBP6 S1221	CAF_only	-0.49	0.49	-1.03	1.53
P48651 1xPhospho [S425]	PTDSS1 S425	Cancer_only	-1.02	1.35	-1.04	0.52
Q13242 2xPhospho [S211;S216]	SRSF9 S211;S216	CAF_only	-0.93	0.87	-1.04	1.53
P46821 1xPhospho [S1988]	MAP1B S1988	CAF_only	-0.63	0.41	-1.04	1.32
Q9ULD4 2xPhospho [S17;S19]	BRPF3 S17;S19	CAF_only	-0.39	0.72	-1.04	1.35
Q12888 1xPhospho [S63]	TP53BP1 S63	CAF_only	-0.77	0.98	-1.05	1.72
Q9P2D1 1xPhospho [S768]	CHD7 S768	CAF_only	0.12	0.13	-1.05	1.71
Q8IYB3 2xPhospho [S707;S]	SRRM1 S707;S	CAF_only	-0.09	0.05	-1.05	1.41
Q99959 2xPhospho [S151;S]	PKP2 S151;S	Cancer_only	-1.32	1.75	-1.05	1.30
Q5SW79 1xPhospho [S497]	CEP170 S497	CAF_only	-0.48	0.37	-1.05	2.20
Q6R327 1xPhospho [T1135]	RICTOR T1135	CAF_only	0.07	0.02	-1.05	2.39

Q8N5N7 [76-95]	MRPL50 76-95	Cancer_only	1.23	1.41	-1.05	0.20
Q9HAW4 2xPhospho [S703;S704]	CLSPN S703;S704	Cancer_only	-2.27	1.61	-1.06	0.90
Q9Y6R0 2xPhospho [S224;S228]	NUMBL S224;S228	CAF_only	-2.91	0.79	-1.06	2.23
P45973 1xPhospho [S110]	CBX5 S110	Cancer_only	-1.44	1.38	-1.06	0.87
O43290 1xPhospho [S448]	SART1 S448	Cancer_only	-1.24	2.20	-1.06	1.01
Q9Y2I9 1xPhospho [S800]	TBC1D30 S800	CAF_only	-0.72	1.25	-1.06	1.37
Q8N9T8 2xPhospho [S95;S97]	KRI1 S95;S97	CAF_only	0.23	0.09	-1.07	1.31
Q9NYF8 1xPhospho [S119]	BCLAF1 S119	CAF_only	-0.03	0.22	-1.07	1.65
P25054 1xPhospho [S987]	APC S987	CAF_only	-0.12	0.18	-1.07	2.64
A1L390 2xPhospho [S1037;S1040]	PLEKHG3 S1037;S1040	CAF_only	-0.96	1.28	-1.07	1.39
Q9GZR1 1xPhospho [S919]	SENP6 S919	CAF_only	-0.21	0.75	-1.07	1.72
Q9H792 1xPhospho [S370]	PEAK1 S370	CAF_only	-0.27	0.06	-1.07	1.72
P78316 1xPhospho [S146]	NOP14 S146	CAF_only	0.11	0.04	-1.07	1.47
Q9P0K7 2xPhospho [S293;S300]	RAI14 S293;S300	CAF_only	-0.77	0.56	-1.07	1.37
Q8TEK3 1xPhospho [S1153]	DOT1L S1153	CAF_only	-1.20	0.87	-1.08	2.11
Q9ULJ3 1xPhospho [S435]	ZBTB21 S435	CAF_only	-0.33	0.29	-1.08	2.53
Q5SW79 2xPhospho [S627;S630]	CEP170 S627;S630	CAF_only	-0.46	1.27	-1.08	1.97
P31641 1xPhospho [S21]	SLC6A6 S21	CAF_only	-0.45	0.72	-1.08	1.31
Q13352 1xPhospho [S17]	ITGB3BP S17	CAF_only	-1.00	0.81	-1.08	1.40
P61353 1xPhospho [S86]	RPL27 S86	CAF_only	-0.31	0.12	-1.08	1.86
Q7Z417 1xPhospho [S652]	NUFIP2 S652	Cancer_only	-1.61	3.34	-1.08	1.01
Q6PJT7 1xPhospho [S390]	ZC3H14 S390	CAF_only	-1.06	1.04	-1.08	1.57
Q13105 [113-136]	ZBTB17 113-136	CAF_only	-0.45	1.75	-1.08	1.73

Q7Z2K6 1xPhospho [S53]	ERMP1 S53	CAF_only	-3.52	0.35	-1.09	1.37
A1L390 1xPhospho [S643]	PLEKHG3 S643	CAF_only	-0.65	0.93	-1.09	1.35
Q16643 1xPhospho [S142]	DBN1 S142	CAF_only	0.27	0.02	-1.09	2.74
P21333 1xPhospho [S2414]	FLNA S2414	CAF_only	-0.26	0.06	-1.09	1.71
O95297 [219-228]	MPZL1 219-228	CAF_only	-2.62	0.25	-1.09	1.31
Q96JC9 2xPhospho [S158;S165]	EAF1 S158;S165	CAF_only	-0.76	0.40	-1.09	1.38
P17544 2xPhospho [T51;T53]	ATF7 T51;T53	Cancer_only	-1.34	2.21	-1.09	0.89
Q6ZW31 2xPhospho [S681;S683]	SYDE1 S681;S683	CAF_only	-0.63	0.60	-1.09	1.98
O15085 1xPhospho [S1155]	ARHGEF11 S1155	CAF_only	0.38	0.16	-1.09	1.36
Q14202 1xPhospho [S774]	ZMYM3 S774	Cancer_only	-1.22	2.01	-1.09	0.48
A1L390 1xPhospho [S1154]	PLEKHG3 S1154	Cancer_only	-1.32	2.02	-1.10	0.25
Q9BQS8 [571-593]	FYCO1 571-593	CAF_only	-0.88	0.67	-1.10	1.85
P33316 1xPhospho [S99]	DUT S99	CAF_only	-0.72	0.46	-1.10	2.11
P35221 1xPhospho [S655]	CTNNA1 S655	Cancer_and_CAF	-2.91	1.53	-1.10	1.55
Q8N488 1xPhospho [S227]	RYBP S227	CAF_only	-0.19	0.08	-1.10	1.81
Q9Y520 1xPhospho [T1965]	PRRC2C T1965	CAF_only	-1.35	1.22	-1.10	1.34
Q9H4I2 1xPhospho [S927]	ZHX3 S927	Cancer_only	-1.33	1.43	-1.10	0.43
Q9UHB6 2xPhospho [S686;S692]	LIMA1 S686;S692	CAF_only	-0.74	0.84	-1.11	1.62
Q9BZ95 2xPhospho [S571;S/T]	WHSC1L1 S571;S/T	CAF_only	-1.76	0.82	-1.11	1.40
Q9ULI0 1xPhospho [S318]	ATAD2B S318	CAF_only	-0.28	0.21	-1.11	1.68
O95292 1xPhospho [T150]	VAPB T150	Cancer_and_CAF	-1.44	2.11	-1.11	1.55
Q12830 1xPhospho [S1231]	BPTF S1231	CAF_only	-0.81	0.81	-1.11	2.93
Q96RT1 1xPhospho [S603]	ERBB2IP S603	CAF_only	-0.83	0.30	-1.12	1.44

Q9Y4F5 1xPhospho [S829]	CEP170B S829	Cancer_only	-1.14	1.77	-1.12	0.77
Q9UHB7 1xPhospho [S836]	AFF4 S836	Cancer_only	-1.34	1.31	-1.12	0.81
Q8NCN4 2xPhospho [S368;S/T]	RNF169 S368;S/T	Cancer_only	-1.44	1.37	-1.12	0.46
Q5JTH9 1xPhospho [S118]	RRP12 S118	Cancer_only	-1.37	1.81	-1.13	0.86
Q8NG31 1xPhospho [S956]	CASC5 S956	CAF_only	-0.99	0.51	-1.13	1.63
Q8TEW0 1xPhospho [S1196]	PARD3 S1196	CAF_only	0.17	0.10	-1.13	2.50
Q9UQ35 2xPhospho [S913;S914]	SRRM2 S913;S914	CAF_only	-0.65	0.71	-1.13	1.57
Q92922 1xPhospho [S822]	SMARCC1 S822	CAF_only	-0.22	0.12	-1.13	1.85
Q14980 2xPhospho [S1991;T2000]	NUMA1 S1991;T2000	CAF_only	-1.08	0.27	-1.13	1.63
Q9Y2L8 1xPhospho [S335]	ZKSCAN5 S335	Cancer_only	1.20	1.95	-1.13	0.38
P27816 1xPhospho [S280]	MAP4 S280	CAF_only	-0.32	1.12	-1.13	1.36
Q8WXI9 1xPhospho [S486]	GATAD2B S486	Cancer_only	-1.35	1.32	-1.13	0.33
Q9BQG0 1xPhospho [T1227]	MYBBP1A T1227	CAF_only	-0.40	0.20	-1.13	1.37
Q96PN7 2xPhospho [T954;S955]	TRERF1 T954;S955	CAF_only	0.05	0.03	-1.14	1.38
Q8TAT5 1xPhospho [S450]	NEIL3 S450	CAF_only	-0.07	0.02	-1.14	1.36
Q9BVI0 1xPhospho [S519]	PHF20 S519	CAF_only	-1.21	0.17	-1.14	1.61
A2AJT9 1xPhospho [S139]	CXorf23 S139	Cancer_only	-1.21	1.90	-1.14	0.87
Q9UQ35 2xPhospho [S1559;S1562]	SRRM2 S1559;S1562	CAF_only	-0.92	0.41	-1.14	1.46
Q6VY07 1xPhospho [S430]	PACS1 S430	CAF_only	-0.84	0.31	-1.14	1.64
Q96QE3 2xPhospho [S1115;S1116]	ATAD5 S1115;S1116	CAF_only	-0.79	0.86	-1.15	1.45
Q96EY4 [175-203]	TMA16 175-203	CAF_only	0.58	0.79	-1.15	1.36
Q13523 1xPhospho [S277]	PRPF4B S277	CAF_only	-3.11	0.34	-1.15	1.47
P11388 2xPhospho [S1392;S1393]	TOP2A S1392;S1393	CAF_only	-0.80	0.34	-1.15	1.58

O15085 1xPhospho [S255]	ARHGEF11 S255	CAF_only	0.07	0.12	-1.15	1.39
Q8WYL5 1xPhospho [S778]	SSH1 S778	CAF_only	-1.00	1.06	-1.15	1.79
Q12888 1xPhospho [S862]	TP53BP1 S862	CAF_only	-0.61	1.08	-1.15	1.56
Q13586 1xPhospho [S668]	STIM1 S668	CAF_only	-1.01	0.55	-1.15	1.40
Q16629 2xPhospho [S179;S181]	SRSF7 S179;S181	CAF_only	-0.32	0.08	-1.15	1.33
Q9UQ35 2xPhospho [S1682;T1684]	SRRM2 S1682;T1684	CAF_only	-0.94	0.59	-1.16	2.46
Q96N67 2xPhospho [S896;S/T]	DOCK7 S896;S/T	CAF_only	-0.73	0.27	-1.16	1.45
P48634 1xPhospho [S1435]	PRRC2A S1435	CAF_only	-0.95	0.55	-1.16	1.67
Q9NZH0 1xPhospho [S354]	GPRC5B S354	CAF_only	-0.91	1.09	-1.16	1.48
Q14195 1xPhospho [T509]	DPYSL3 T509	CAF_only	-0.24	0.08	-1.16	1.44
Q96RT1 2xPhospho [S704;S/T]	ERBB2IP S704;S/T	CAF_only	-0.17	0.03	-1.16	1.88
Q15345 1xPhospho [S276]	LRRC41 S276	Cancer_only	-1.89	1.46	-1.16	0.83
Q9Y3T9 1xPhospho [S672]	NOC2L S672	CAF_only	-0.81	0.58	-1.16	2.12
O75494 1xPhospho [S209]	SRSF10 S209	CAF_only	-2.07	0.57	-1.16	1.77
P55201 1xPhospho [S462]	BRPF1 S462	Cancer_only	-1.19	1.54	-1.16	1.02
Q9HCH5 1xPhospho [S154]	SYTL2 S154	CAF_only	-0.86	0.45	-1.17	1.53
O94880 1xPhospho [S298]	PHF14 S298	CAF_only	-0.77	0.67	-1.17	1.42
O14757 1xPhospho [S301]	CHEK1 S301	CAF_only	-0.40	0.29	-1.17	1.68
Q96ST3 1xPhospho [S10]	SIN3A S10	CAF_only	-0.95	0.73	-1.17	1.62
Q6PKG0 1xPhospho [S215]	LARP1 S215	CAF_only	-0.61	0.42	-1.17	1.32
Q8TEW0 1xPhospho [S201]	PARD3 S201	Cancer_only	-2.49	1.34	-1.17	0.98
Q9UIG0 [151-175]	BAZ1B 151-175	CAF_only	-1.38	0.91	-1.18	2.00
Q86X27 1xPhospho [S296]	RALGPS2 S296	Cancer_only	2.71	1.31	-1.18	0.28

A8K0R7 1xPhospho [S316]	ZNF839 S316	CAF_only	-0.18	0.06	-1.18	1.86
O14686 1xPhospho [S2274]	KMT2D S2274	CAF_only	-1.13	0.42	-1.19	1.46
Q5R3F8 1xPhospho [S619]	ELFN2 S619	CAF_only	-0.12	0.15	-1.19	3.54
Q96JN0 1xPhospho [S249]	LCOR S249	Cancer_and_CAF	-1.27	4.25	-1.19	1.33
O94761 1xPhospho [S27]	RECQL4 S27	CAF_only	-2.01	1.15	-1.19	1.65
Q6PL18 1xPhospho [S1243]	ATAD2 S1243	CAF_only	0.05	0.11	-1.19	1.82
P37840 [103-140]	SNCA 103-140	Cancer_only	1.62	1.73	-1.19	0.90
O43318 1xPhospho [S367]	MAP3K7 S367	CAF_only	-0.72	0.14	-1.19	1.54
Q8N556 1xPhospho [S265]	AFAP1 S265	CAF_only	-1.40	0.81	-1.20	2.32
P15822 1xPhospho [S779]	HIVEP1 S779	CAF_only	0.88	0.44	-1.20	1.73
Q9BXB4 1xPhospho [T27]	OSBPL11 T27	CAF_only	0.37	0.51	-1.20	1.66
Q9UQ35 2xPhospho [S1401;S1404]	SRRM2 S1401;S1404	CAF_only	-0.50	0.55	-1.20	3.66
O15504 1xPhospho [S106]	NUPL2 S106	CAF_only	0.11	2.16	-1.20	1.74
Q9BR61 1xPhospho [S106]	ACBD6 S106	CAF_only	0.75	0.66	-1.20	1.51
Q9H2Y7 1xPhospho [S872]	ZNF106 S872	CAF_only	-1.18	0.28	-1.20	1.56
Q8WXH0 [6347-6371]	SYNE2 6347-6371	CAF_only	-0.66	0.63	-1.20	2.30
Q9Y3T9 1xPhospho [S49]	NOC2L S49	CAF_only	-0.45	0.28	-1.20	1.38
P42696 1xPhospho [S90]	RBM34 S90	CAF_only	-0.26	0.20	-1.20	1.83
Q96FS4 1xPhospho [S55]	SIPA1 S55	CAF_only	-0.52	0.49	-1.20	1.39
O15037 1xPhospho [S353]	KHNYN S353	CAF_only	0.26	0.36	-1.21	1.48
Q8IWC1 1xPhospho [T297]	MAP7D3 T297	Cancer_only	-1.17	1.54	-1.22	0.61
P25116 1xPhospho [S400]	F2R S400	CAF_only	-1.10	0.90	-1.22	1.36
Q8TEW0 1xPhospho [S187]	PARD3 S187	CAF_only	-0.93	1.40	-1.22	1.68

Q5TBA9 1xPhospho [S1995]	FRY S1995	CAF_only	-5.18	0.35	-1.22	1.59
Q8NCW6 1xPhospho [S545]	GALNT11 S545	CAF_only	-5.18	0.35	-1.22	1.59
O95625 1xPhospho [S449]	ZBTB11 S449	CAF_only	1.23	0.69	-1.23	1.46
Q9HC35 2xPhospho [T160;S]	EML4 T160;S	CAF_only	-0.58	1.17	-1.23	2.16
Q6IQ49 1xPhospho [S278]	SDE2 S278	CAF_only	-1.13	0.45	-1.23	1.81
Q6GYQ0 1xPhospho [S831]	RALGAPA1 S831	CAF_only	1.09	0.26	-1.23	1.63
Q5M775 1xPhospho [S361]	SPECC1 S361	CAF_only	-1.57	0.42	-1.23	1.60
P46939 1xPhospho [S1866]	UTRN S1866	Cancer_and_CAF	-1.28	2.11	-1.23	1.77
Q86UE4 1xPhospho [S568]	MTDH S568	Cancer_only	-1.15	1.44	-1.23	0.78
Q8N2Y8 1xPhospho [S781]	RUSC2 S781	Cancer_only	-1.53	2.71	-1.23	0.35
Q15398 1xPhospho [S690]	DLGAP5 S690	CAF_only	-1.35	0.74	-1.23	1.66
P41440 2xPhospho [S499;S503]	SLC19A1 S499;S503	Cancer_only	-1.53	1.37	-1.23	1.11
Q5T5X7 1xPhospho [T124]	BEND3 T124	CAF_only	-1.08	1.19	-1.24	1.81
Q9NVT9 1xPhospho [S246]	ARMC1 S246	CAF_only	-0.30	0.17	-1.24	1.51
Q9UKV3 1xPhospho [S240]	ACIN1 S240	Cancer_only	-1.49	1.35	-1.24	0.42
Q8IX90 1xPhospho [S119]	SKA3 S119	CAF_only	-0.13	0.36	-1.24	1.72
Q9UPN6 1xPhospho [T619]	SCAF8 T619	CAF_only	-0.28	0.60	-1.24	1.48
P02545 1xPhospho [S22]	LMNA S22	CAF_only	-0.97	0.44	-1.24	1.33
P35221 1xPhospho [S652]	CTNNA1 S652	Cancer_only	-1.23	1.39	-1.25	0.62
Q6IBW4 1xPhospho [S284]	NCAPH2 S284	CAF_only	-0.10	0.06	-1.25	1.87
Q9Y248 [172-185]	GINS2 172-185	CAF_only	-0.64	0.61	-1.25	1.52
O94921 1xPhospho [S95]	CDK14 S95	Cancer_only	-1.83	1.38	-1.25	0.95
Q68E01 1xPhospho [S1042]	INTS3 S1042	CAF_only	0.58	0.66	-1.26	1.68

Q86SQ0 2xPhospho [S384;S387]	PHLDB2 S384;S387	Cancer_only	-2.18	1.70	-1.26	1.14
Q9UPP1 1xPhospho [S804]	PHF8 S804	CAF_only	-0.08	0.05	-1.26	1.34
P35221 2xPhospho [S655;T658]	CTNNA1 S655;T658	CAF_only	-1.75	1.19	-1.27	1.43
P49790 1xPhospho [S320]	NUP153 S320	Cancer_only	-1.06	2.02	-1.27	0.71
Q15293 1xPhospho [S234]	RCN1 S234	CAF_only	-1.13	0.43	-1.27	1.91
Q9BVJ6 1xPhospho [T205]	UTP14A T205	Cancer_only	-1.57	1.44	-1.27	0.72
O15061 1xPhospho [S1181]	SYNM S1181	Cancer_only	-2.71	1.37	-1.28	1.26
Q29RF7 1xPhospho [S1305]	PDS5A S1305	CAF_only	-0.69	0.40	-1.28	2.66
Q9H0B6 1xPhospho [S556]	KLC2 S556	CAF_only	-0.12	1.13	-1.28	1.83
Q8NCG7 2xPhospho [S583;S584]	DAGLB S583;S584	Cancer_only	-1.43	1.40	-1.28	0.57
Q6ZU80 1xPhospho [S31]	CEP128 S31	CAF_only	-0.78	2.02	-1.28	1.41
Q9P212 1xPhospho [S1121]	PLCE1 S1121	CAF_only	-0.70	0.70	-1.28	1.54
O15014 1xPhospho [S758]	ZNF609 S758	CAF_only	-0.47	1.32	-1.28	1.41
Q9Y2F5 1xPhospho [T1620]	ICE1 T1620	CAF_only	-1.58	1.04	-1.28	1.65
O75381 1xPhospho [S335]	PEX14 S335	CAF_only	-0.69	0.48	-1.29	1.56
Q5T3F8 [109-121]	TMEM63B 109-121	CAF_only	-0.50	0.94	-1.29	1.52
Q5H9R7 [844-857]	PPP6R3 844-857	CAF_only	-0.81	0.41	-1.29	1.57
Q9BY89 2xPhospho [S448;S465]	KIAA1671 S448;S465	Cancer_only	-1.79	2.05	-1.30	1.27
Q9H706 1xPhospho [S742]	GAREM S742	CAF_only	-0.76	0.75	-1.30	1.78
Q9Y2H5 1xPhospho [S251]	PLEKHA6 S251	CAF_only	-0.53	0.12	-1.30	1.38
Q9NQS7 2xPhospho [S197;T219]	INCENP S197;T219	CAF_only	-1.51	1.22	-1.30	1.31
Q9UDT6 1xPhospho [S42]	CLIP2 S42	CAF_only	-0.43	0.28	-1.30	1.81
Q07065 1xPhospho [S26]	CKAP4 S26	CAF_only	-1.66	0.70	-1.30	1.75

Q96JM3 2xPhospho [S445;S452]	CHAMP1 S445;S452	CAF_only	-0.63	0.51	-1.31	2.05
O15164 1xPhospho [S654]	TRIM24 S654	CAF_only	-1.48	0.73	-1.31	1.43
Q8NDB6 1xPhospho [S11]	FAM156A S11	CAF_only	-1.62	0.44	-1.32	1.41
O15344 1xPhospho [S66]	MID1 S66	Cancer_and_CAF	-1.11	2.04	-1.33	1.63
Q8NCD3 2xPhospho [S123;S140]	HJURP S123;S140	CAF_only	-0.25	0.16	-1.33	1.45
Q9Y520 1xPhospho [S187]	PRRC2C S187	CAF_only	-0.85	1.43	-1.33	1.36
Q92922 1xPhospho [S357]	SMARCC1 S357	Cancer_only	-1.75	3.18	-1.33	0.45
Q9NZ53 1xPhospho [S558]	PODXL2 S558	Cancer_only	-2.24	1.37	-1.33	0.61
Q9BUQ8 1xPhospho [S39]	DDX23 S39	CAF_only	0.03	0.00	-1.33	2.54
Q16763 1xPhospho [S73]	UBE2S S73	CAF_only	-0.52	0.29	-1.33	2.41
O15020 1xPhospho [S2050]	SPTBN2 S2050	CAF_only	0.19	0.45	-1.33	1.33
Q9BY12 1xPhospho [S185]	SCAPER S185	Cancer_only	-1.23	1.36	-1.33	1.05
Q86YS7 1xPhospho [S852]	C2CD5 S852	CAF_only	-0.27	0.18	-1.33	1.47
P07355 1xPhospho [S184]	ANXA2 S184	Cancer_and_CAF	-1.76	1.55	-1.33	2.77
Q8IVF2 1xPhospho [S4182]	AHNAK2 S4182	CAF_only	-2.07	0.60	-1.34	3.19
Q9Y520 [2690-2701]	PRRC2C 2690-2701	CAF_only	0.06	0.02	-1.34	1.98
Q5BKZ1 1xPhospho [S270]	ZNF326 S270	CAF_only	-0.62	0.41	-1.34	2.17
Q6P995 1xPhospho [S436]	FAM171B S436	Cancer_only	-1.32	1.52	-1.34	0.92
Q86WB0 2xPhospho [S354;S359]	ZC3HC1 S354;S359	Cancer_and_CAF	-1.20	2.00	-1.34	1.85
Q9H0G5 1xPhospho [T275]	NSRP1 T275	CAF_only	-0.82	0.65	-1.34	2.12
Q7Z2Z1 1xPhospho [S1623]	TICRR S1623	CAF_only	-0.13	0.18	-1.34	1.76
Q86UU1 1xPhospho [S324]	PHLDB1 S324	CAF_only	-1.33	1.13	-1.35	1.87
Q14839 1xPhospho [S1648]	CHD4 S1648	CAF_only	-0.45	0.25	-1.35	1.91

Q86YP4 2xPhospho [S100;S107]	GATAD2A S100;S107	CAF_only	-0.72	0.50	-1.35	1.57
Q14978 1xPhospho [T188]	NOLC1 T188	Cancer_only	-1.30	1.91	-1.36	0.49
P52292 1xPhospho [S62]	KPNA2 S62	Cancer_only	-1.17	1.63	-1.36	0.78
Q9NYF8 2xPhospho [S276;S]	BCLAF1 S276;S	CAF_only	-0.21	0.07	-1.37	1.61
O15061 1xPhospho [S1435]	SYNM S1435	CAF_only	-1.28	0.60	-1.37	1.30
Q9ULJ3 1xPhospho [S1003]	ZBTB21 S1003	Cancer_only	-1.01	1.43	-1.37	0.62
Q8NI27 1xPhospho [S1364]	THOC2 S1364	CAF_only	0.02	0.01	-1.37	1.35
P43243 1xPhospho [S533]	MATR3 S533	Cancer_only	1.90	1.68	-1.37	0.37
Q5VT52 2xPhospho [S928;S930]	RPRD2 S928;S930	CAF_only	-1.00	0.50	-1.37	1.60
Q15032 1xPhospho [S187]	R3HDM1 S187	CAF_only	-0.39	0.08	-1.37	1.33
Q96T58 1xPhospho [S2120]	SPEN S2120	Cancer_only	-1.01	1.90	-1.37	0.79
Q9Y6Y0 1xPhospho [S246]	IVNS1ABP S246	Cancer_only	-1.13	1.53	-1.37	0.66
Q8WYL5 2xPhospho [S515;S521]	SSH1 S515;S521	Cancer_only	-1.48	1.49	-1.38	0.58
P25054 1xPhospho [S2449]	APC S2449	CAF_only	-1.11	0.75	-1.38	1.89
Q16513 1xPhospho [S360]	PKN2 S360	Cancer_only	-1.11	1.55	-1.38	0.77
P0DJD0 1xPhospho [S1216]	RGPD1 S1216	CAF_only	-0.69	0.15	-1.38	2.11
P49792 1xPhospho [S2207]	RANBP2 S2207	CAF_only	-0.69	0.15	-1.38	2.11
Q9NQS7 1xPhospho [S197]	INCENP S197	CAF_only	-1.94	1.16	-1.38	1.61
Q9H4G0 1xPhospho [T475]	EPB41L1 T475	Cancer_only	-1.20	1.44	-1.39	0.61
Q9NX40 1xPhospho [S108]	OCIAD1 S108	CAF_only	1.16	0.12	-1.39	2.36
Q71RC2 [593-615]	LARP4 593-615	CAF_only	-0.82	0.59	-1.39	1.93
Q6P4R8 1xPhospho [T499]	NFRKB T499	CAF_only	-1.69	0.68	-1.39	2.42
Q86U86 2xPhospho [S501;S502]	PBRM1 S501;S502	Cancer_only	-1.27	1.56	-1.40	0.81

P18858 1xPhospho [T183]	LIG1 T183	Cancer_only	-1.13	2.43	-1.40	1.24
P25054 2xPhospho [S1861;S]	APC S1861;S	Cancer_only	-2.58	1.69	-1.40	0.33
Q8IXM2 1xPhospho [S96]	BAP18 S96	CAF_only	-0.75	0.45	-1.40	1.97
Q8WX93 1xPhospho [S1104]	PALLD S1104	CAF_only	-0.73	0.30	-1.40	1.56
Q9C086 1xPhospho [S351]	INO80B S351	CAF_only	0.56	0.23	-1.40	2.23
Q14687 1xPhospho [S826]	GSE1 S826	CAF_only	-1.35	0.63	-1.41	1.36
O95935 1xPhospho [S543]	TBX18 S543	CAF_only	0.07	0.04	-1.41	2.31
Q14160 2xPhospho [S1232;S]	SCRIB S1232;S	CAF_only	-0.19	0.60	-1.41	2.42
Q00059 1xPhospho [S195]	TFAM S195	CAF_only	-0.90	2.36	-1.41	1.37
O60292 2xPhospho [S171;S172]	SIPA1L3 S171;S172	CAF_only	-1.17	0.42	-1.42	1.65
Q86YC2 1xPhospho [S660]	PALB2 S660	CAF_only	-0.90	0.99	-1.42	1.51
Q09666 1xPhospho [S5552]	AHNAK S5552	CAF_only	-0.71	0.46	-1.42	1.32
Q9NXR1 1xPhospho [S282]	NDE1 S282	Cancer_only	-1.54	1.38	-1.42	1.05
Q7Z434 1xPhospho [S408]	MAVS S408	Cancer_only	-1.38	1.64	-1.43	0.34
Q12923 2xPhospho [S887;S890]	PTPN13 S887;S890	CAF_only	-1.68	0.85	-1.43	2.40
Q14106 1xPhospho [S222]	TOB2 S222	CAF_only	-0.51	0.29	-1.43	1.71
P29966 1xPhospho [T150]	MARCKS T150	Cancer_only	-1.60	1.44	-1.43	0.71
Q9Y2F5 1xPhospho [S533]	ICE1 S533	CAF_only	0.10	0.02	-1.44	1.96
Q9BY89 1xPhospho [S1506]	KIAA1671 S1506	CAF_only	-1.12	0.51	-1.45	1.93
Q8N5F7 1xPhospho [S178]	NKAP S178	CAF_only	-1.05	0.77	-1.45	1.43
Q03001 2xPhospho [S2527;S2529]	DST S2527;S2529	CAF_only	-0.89	1.61	-1.45	1.40
Q9Y2H0 1xPhospho [T915]	DLGAP4 T915	CAF_only	-0.70	0.69	-1.45	1.74
O43482 1xPhospho [S225]	OIP5 S225	CAF_only	-1.07	1.16	-1.45	1.42

Q8N1F8 1xPhospho [S599]	STK11IP S599	Cancer_only	-1.07	1.78	-1.45	0.60
P05455 1xPhospho [S92]	SSB S92	Cancer_only	-1.48	1.75	-1.46	1.18
Q15287 1xPhospho [S52]	RNPS1 S52	Cancer_only	-1.02	1.42	-1.46	0.73
P18827 1xPhospho [S285]	SDC1 S285	CAF_only	-1.12	0.56	-1.47	1.52
P42858 2xPhospho [S640;S643]	HTT S640;S643	CAF_only	-1.44	0.58	-1.47	2.27
O96028 2xPhospho [T115;S121]	WHSC1 T115;S121	Cancer_only	-2.21	2.69	-1.48	0.46
O15027 1xPhospho [S1964]	SEC16A S1964	Cancer_only	-1.03	2.06	-1.48	0.85
O60493 1xPhospho [S72]	SNX3 S72	CAF_only	0.03	0.00	-1.48	1.71
Q9C0C2 1xPhospho [T1282]	TNKS1BP1 T1282	CAF_only	-0.95	1.05	-1.48	1.32
Q13428 2xPhospho [S1350;T1358]	TCOF1 S1350;T1358	CAF_only	-2.16	1.29	-1.49	1.35
Q9NYB0 1xPhospho [S203]	TERF2IP S203	CAF_only	-0.22	0.13	-1.49	1.93
A8MPP1 1xPhospho [S204]	DDX11L8 S204	CAF_only	-0.19	1.54	-1.49	1.31
Q96QB1 1xPhospho [S946]	DLC1 S946	CAF_only	-0.11	0.06	-1.49	1.69
P08581 2xPhospho [S997;S1000]	MET S997;S1000	CAF_only	-1.38	0.61	-1.49	1.36
Q8WVN8 1xPhospho [T369]	UBE2Q2 T369	CAF_only	-0.71	0.42	-1.49	1.50
Q9UFC0 1xPhospho [S243]	LRWD1 S243	CAF_only	-0.60	0.57	-1.49	1.67
Q09666 1xPhospho [T3366]	AHNAK T3366	CAF_only	-0.88	0.37	-1.49	1.42
P98175 1xPhospho [S905]	RBM10 S905	CAF_only	-0.86	0.70	-1.50	2.83
Q3B820 1xPhospho [S137]	FAM161A S137	CAF_only	-1.32	0.31	-1.50	1.31
Q9H6E5 1xPhospho [S133]	TUT1 S133	CAF_only	-0.62	0.97	-1.50	1.52
P10109 [61-74]	FDX1 61-74	CAF_only	-1.21	1.26	-1.50	1.75
Q8IY17 1xPhospho [T464]	PNPLA6 T464	Cancer_only	-2.09	2.07	-1.51	0.89
Q8NBJ4 1xPhospho [S191]	GOLM1 S191	Cancer_only	-2.40	1.89	-1.51	0.48

Q96RE7 2xPhospho [S274;S277]	NACC1 S274;S277	Cancer_only	-1.18	1.54	-1.51	0.64
Q9UQ35 2xPhospho [S973;S/Y/T]	SRRM2 S973;S/Y/T	CAF_only	-0.56	0.67	-1.51	1.35
Q14978 [80-103]	NOLC1 80-103	CAF_only	1.06	0.13	-1.52	1.86
P38398 1xPhospho [S632]	BRCA1 S632	CAF_only	-0.73	1.19	-1.52	1.48
Q8IZT6 1xPhospho [S1103]	ASPM S1103	CAF_only	-0.41	0.43	-1.52	2.16
O60264 1xPhospho [S755]	SMARCA5 S755	CAF_only	-1.58	0.39	-1.52	1.89
P28370 1xPhospho [S770]	SMARCA1 S770	CAF_only	-1.58	0.39	-1.52	1.89
Q9P275 1xPhospho [S429]	USP36 S429	CAF_only	-1.09	0.53	-1.53	1.41
P35251 1xPhospho [S69]	RFC1 S69	CAF_only	-0.38	0.10	-1.53	1.51
Q68DK7 2xPhospho [T396;S/T]	MSL1 T396;S/T	Cancer_only	-1.39	1.75	-1.53	1.20
Q14241 1xPhospho [S542]	TCEB3 S542	CAF_only	-0.63	0.30	-1.53	1.65
P52758 1xPhospho [S136]	HRSP12 S136	CAF_only	-2.66	0.57	-1.54	1.62
Q86WB0 1xPhospho [S24]	ZC3HC1 S24	CAF_only	-0.48	0.66	-1.54	1.47
Q9P2N5 1xPhospho [T888]	RBM27 T888	CAF_only	-2.58	0.78	-1.54	1.30
Q8NCN4 1xPhospho [T554]	RNF169 T554	CAF_only	-1.37	1.09	-1.54	1.50
Q8TEW8 2xPhospho [S971;S973]	PARD3B S971;S973	CAF_only	-0.86	0.34	-1.54	2.14
O60347 [201-236]	TBC1D12 201-236	CAF_only	-0.42	0.20	-1.55	1.57
Q9UMS6 1xPhospho [S902]	SYNPO2 S902	CAF_only	-1.20	0.17	-1.55	1.40
Q03112 1xPhospho [S726]	MECOM S726	CAF_only	-0.69	2.08	-1.55	2.28
Q6VMQ6 2xPhospho [S477;S]	ATF7IP S477;S	CAF_only	0.16	0.11	-1.56	1.72
P51114 2xPhospho [S448;S450]	FXR1 S448;S450	Cancer_and_CAF	-1.38	1.92	-1.56	1.71
Q96AC1 2xPhospho [S159;S181]	FERMT2 S159;S181	CAF_only	0.21	0.49	-1.57	1.67
O75717 1xPhospho [S1090]	WDHD1 S1090	Cancer_only	-1.31	1.38	-1.58	0.98

O60832 1xPhospho [S21]	DKC1 S21	CAF_only	-0.84	0.85	-1.58	1.56
Q6PJT7 2xPhospho [S135;S/T]	ZC3H14 S135;S/T	CAF_only	-1.43	0.78	-1.58	1.82
Q0ZGT2 1xPhospho [S365]	NEXN S365	Cancer_and_CAF	-1.51	1.36	-1.58	1.42
Q15648 2xPhospho [T998;S1000]	MED1 T998;S1000	Cancer_only	-1.73	1.58	-1.58	1.09
Q9HCH5 1xPhospho [S511]	SYTL2 S511	CAF_only	-0.90	0.36	-1.59	1.45
P16333 1xPhospho [S91]	NCK1 S91	CAF_only	0.39	0.86	-1.59	1.46
Q14938 2xPhospho [S280;S288]	NFIX S280;S288	CAF_only	-1.14	0.33	-1.59	1.78
Q71RC2 1xPhospho [S647]	LARP4 S647	Cancer_only	-1.27	1.47	-1.59	0.91
Q9HBL0 1xPhospho [S1381]	TNS1 S1381	Cancer_only	-1.80	1.77	-1.60	0.74
Q9NW07 1xPhospho [S545]	ZNF358 S545	CAF_only	-1.45	1.05	-1.60	1.42
Q9H792 1xPhospho [S854]	PEAK1 S854	CAF_only	-1.26	0.89	-1.60	1.33
O00399 1xPhospho [T186]	DCTN6 T186	CAF_only	-0.81	0.56	-1.60	1.86
Q86WB0 1xPhospho [S335]	ZC3HC1 S335	Cancer_only	-1.37	3.64	-1.60	1.05
Q5UIP0 [1148-1173]	RIF1 1148-1173	CAF_only	-1.02	0.34	-1.61	1.83
Q9H0H5 1xPhospho [T243]	RACGAP1 T243	CAF_only	-0.58	0.18	-1.61	1.55
O60315 2xPhospho [S705;S707]	ZEB2 S705;S707	CAF_only	-1.56	0.48	-1.61	1.56
Q9NQW6 1xPhospho [S276]	ANLN S276	Cancer_only	-1.32	1.63	-1.62	0.55
Q6PL18 1xPhospho [S1139]	ATAD2 S1139	CAF_only	-1.05	0.84	-1.62	1.46
Q8WWQ0 1xPhospho [T1480]	PHIP T1480	CAF_only	-0.67	0.29	-1.62	1.89
Q8NF91 2xPhospho [S8280;T/S/Y]	SYNE1 S8280;T/S/Y	Cancer_only	-2.54	1.44	-1.62	0.76
Q13523 2xPhospho [S230;S232]	PRPF4B S230;S232	Cancer_only	-1.83	1.34	-1.62	0.83
Q5M775 1xPhospho [S810]	SPECC1 S810	CAF_only	-1.11	1.06	-1.62	1.68
P27816 1xPhospho [S825]	MAP4 S825	CAF_only	-1.01	0.81	-1.63	1.77

O14639 1xPhospho [S422]	ABLIM1 S422	Cancer_only	-2.19	1.52	-1.63	1.09
Q9NYP9 1xPhospho [S29]	MIS18A S29	CAF_only	-1.12	1.30	-1.63	1.70
A1L390 1xPhospho [S1081]	PLEKHG3 S1081	CAF_only	-0.64	2.06	-1.64	1.90
Q99590 2xPhospho [S796;S802]	SCAF11 S796;S802	CAF_only	-1.52	1.14	-1.64	2.37
Q14118 1xPhospho [S888]	DAG1 S888	CAF_only	-0.74	0.44	-1.64	1.37
Q15269 1xPhospho [T262]	PWP2 T262	CAF_only	-2.01	1.23	-1.64	1.89
P55211 1xPhospho [S300]	CASP9 S300	CAF_only	-0.26	0.08	-1.65	2.79
Q01664 1xPhospho [S139]	TFAP4 S139	CAF_only	-1.09	0.82	-1.65	1.81
Q14149 1xPhospho [S845]	MORC3 S845	Cancer_and_CAF	-2.55	1.96	-1.65	1.60
Q9UPQ4 1xPhospho [S65]	TRIM35 S65	CAF_only	-3.16	0.25	-1.65	2.01
Q9BXY0 2xPhospho [S197;S/T]	MAK16 S197;S/T	Cancer_only	-1.48	2.44	-1.65	0.98
Q8WWQ0 1xPhospho [S692]	PHIP S692	CAF_only	-0.79	0.82	-1.66	1.44
Q14684 1xPhospho [S513]	RRP1B S513	CAF_only	-1.19	0.69	-1.66	1.36
Q9NRA0 1xPhospho [S414]	SPHK2 S414	Cancer_only	-1.19	1.81	-1.66	1.01
Q86T24 1xPhospho [S188]	ZBTB33 S188	CAF_only	-0.86	0.64	-1.66	1.74
P48681 1xPhospho [S905]	NES S905	Cancer_and_CAF	-1.57	1.44	-1.66	1.76
Q96JM3 1xPhospho [S436]	CHAMP1 S436	Cancer_and_CAF	-2.19	1.77	-1.67	1.67
Q9P2E9 1xPhospho [T235]	RRBP1 T235	CAF_only	-2.01	0.61	-1.67	1.47
Q96HR8 1xPhospho [S315]	NAF1 S315	CAF_only	-0.95	0.79	-1.67	1.59
Q96Q89 1xPhospho [S1658]	KIF20B S1658	Cancer_and_CAF	-1.43	1.32	-1.68	1.35
Q86VM9 1xPhospho [S868]	ZC3H18 S868	CAF_only	0.70	0.06	-1.68	1.90
Q99700 1xPhospho [S889]	ATXN2 S889	Cancer_only	-1.03	1.66	-1.68	1.25
O14617 1xPhospho [S829]	AP3D1 S829	CAF_only	-0.97	1.93	-1.68	1.36

O15066 1xPhospho [T672]	KIF3B T672	CAF_only	-3.50	0.50	-1.68	1.63
Q6PD62 1xPhospho [S943]	CTR9 S943	CAF_only	0.66	0.19	-1.69	1.42
Q12888 1xPhospho [S771]	TP53BP1 S771	CAF_only	-1.09	0.56	-1.69	1.46
Q99728 1xPhospho [S364]	BARD1 S364	CAF_only	-0.82	0.83	-1.69	1.36
Q9UNS1 1xPhospho [S1121]	TIMELESS S1121	CAF_only	-1.27	0.62	-1.70	1.94
Q14153 1xPhospho [S148]	FAM53B S148	CAF_only	-0.84	0.21	-1.70	1.40
P25054 1xPhospho [S130]	APC S130	Cancer_and_CAF	-1.24	1.46	-1.72	1.90
Q9C0B5 1xPhospho [S593]	ZDHHC5 S593	CAF_only	-0.55	0.33	-1.72	1.34
Q6DN90 1xPhospho [S512]	IQSEC1 S512	CAF_only	-0.61	0.44	-1.72	2.59
Q9UQ35 1xPhospho [T2599]	SRRM2 T2599	Cancer_only	-3.49	2.22	-1.72	0.66
P0DJD0 1xPhospho [S1592]	RGPD1 S1592	CAF_only	-0.59	0.50	-1.72	1.48
P49792 1xPhospho [S2583]	RANBP2 S2583	CAF_only	-0.59	0.50	-1.72	1.48
Q99666 1xPhospho [S1607]	RGPD5 S1607	CAF_only	-0.59	0.50	-1.72	1.48
Q99590 1xPhospho [S776]	SCAF11 S776	Cancer_only	-1.25	1.55	-1.72	0.86
O60231 1xPhospho [S103]	DHX16 S103	CAF_only	-0.19	0.06	-1.73	1.63
Q9Y618 [2387-2399]	NCOR2 2387-2399	CAF_only	0.28	0.49	-1.73	1.62
P78549 2xPhospho [S51;S53]	NTHL1 S51;S53	CAF_only	-1.26	0.70	-1.73	1.62
P12270 1xPhospho [S1185]	TPR S1185	CAF_only	-1.15	1.07	-1.73	1.31
Q15811 1xPhospho [T1144]	ITSN1 T1144	Cancer_and_CAF	-1.49	1.91	-1.74	1.32
Q14160 2xPhospho [S1445;S1448]	SCRIB S1445;S1448	CAF_only	-0.91	0.52	-1.74	2.70
Q5BKX8 1xPhospho [S20]	MURC S20	Cancer_only	-2.83	1.52	-1.74	0.67
Q01082 2xPhospho [S2165;S2169]	SPTBN1 S2165;S2169	Cancer_and_CAF	-2.23	1.75	-1.74	1.57
Q02224 1xPhospho [S2639]	CENPE S2639	CAF_only	-0.53	0.51	-1.74	1.73

P27694 1xPhospho [S384]	RPA1 S384	Cancer_only	-1.18	1.70	-1.75	1.09
Q14160 1xPhospho [S1448]	SCRIB S1448	CAF_only	-0.02	0.02	-1.75	2.34
Q16539 2xPhospho [T180;Y182]	MAPK14 T180;Y182	Cancer_only	-3.24	1.98	-1.75	0.15
Q0ZGT2 1xPhospho [S569]	NEXN S569	Cancer_and_CAF	-2.20	1.50	-1.75	1.48
Q9UJU6 1xPhospho [T270]	DBNL T270	CAF_only	-1.63	0.93	-1.75	1.45
P46013 2xPhospho [S1131;T1139]	MKI67 S1131;T1139	CAF_only	-1.07	0.92	-1.76	1.36
Q9ULH7 1xPhospho [S921]	MKL2 S921	CAF_only	1.12	0.31	-1.76	2.68
O43707 1xPhospho [S909]	ACTN4 S909	CAF_only	-0.33	0.62	-1.76	1.36
Q9H2Y7 1xPhospho [S1315]	ZNF106 S1315	CAF_only	-1.37	0.36	-1.76	1.74
P52569 1xPhospho [S455]	SLC7A2 S455	CAF_only	-2.04	0.47	-1.77	1.31
Q15643 1xPhospho [S464]	TRIP11 S464	CAF_only	-0.61	0.98	-1.77	1.56
Q9UKL3 1xPhospho [T1261]	CASP8AP2 T1261	Cancer_only	-1.76	1.44	-1.77	1.20
Q8WXI2 1xPhospho [S702]	CNKSR2 S702	CAF_only	-0.34	0.30	-1.78	2.82
Q6IQ23 2xPhospho [S903;S907]	PLEKHA7 S903;S907	Cancer_only	-1.16	2.26	-1.78	0.92
P48634 1xPhospho [T878]	PRRC2A T878	CAF_only	-1.03	0.60	-1.78	1.96
O75475 1xPhospho [S275]	PSIP1 S275	CAF_only	-0.02	0.00	-1.78	2.35
Q9Y2I7 1xPhospho [S329]	PIKFYVE S329	CAF_only	0.20	0.64	-1.79	2.02
Q9Y2K7 1xPhospho [S692]	KDM2A S692	CAF_only	-0.90	0.75	-1.79	1.69
P49454 1xPhospho [S1726]	CENPF S1726	CAF_only	-1.04	0.73	-1.79	1.44
Q7Z417 2xPhospho [S212;T220]	NUFIP2 S212;T220	CAF_only	-1.72	1.07	-1.79	3.13
Q9NZ53 1xPhospho [S596]	PODXL2 S596	Cancer_and_CAF	-1.50	1.37	-1.79	1.70
P38159 1xPhospho [S261]	RBMX S261	CAF_only	-0.47	0.12	-1.80	1.34
A2A2Y4 1xPhospho [S416]	FRMD3 S416	Cancer_only	-1.33	1.54	-1.80	0.94

O75419 [121-156]	CDC45 121-156	Cancer_only	-1.14	1.32	-1.82	1.25
O60271 1xPhospho [T276]	SPAG9 T276	Cancer_only	-1.52	1.98	-1.82	0.54
O95425 1xPhospho [S920]	SVIL S920	CAF_only	-1.59	0.63	-1.83	1.58
O43719 2xPhospho [S713;S714]	HTATSF1 S713;S714	CAF_only	-1.27	0.41	-1.83	1.54
Q9UIG0 1xPhospho [S330]	BAZ1B S330	CAF_only	-0.87	1.10	-1.83	1.63
Q99959 1xPhospho [S135]	PKP2 S135	CAF_only	-0.27	0.02	-1.84	1.34
Q96DY7 1xPhospho [S639]	MTBP S639	CAF_only	-1.40	0.65	-1.84	1.48
Q5SW79 1xPhospho [S1251]	CEP170 S1251	Cancer_only	-1.03	1.56	-1.84	0.88
Q53HL2 1xPhospho [S219]	CDCA8 S219	CAF_only	-0.65	0.24	-1.85	1.32
Q9Y657 1xPhospho [S124]	SPIN1 S124	CAF_only	-1.69	1.07	-1.85	1.43
P46821 1xPhospho [S1939]	MAP1B S1939	CAF_only	-1.26	1.24	-1.86	1.98
Q8NCD3 1xPhospho [S140]	HJURP S140	CAF_only	-0.24	0.16	-1.87	1.68
Q6ZRV2 1xPhospho [S870];1xPhospho [S903]	FAM83H S870;S903	CAF_only	-1.76	0.78	-1.87	1.32
Q9H2P0 1xPhospho [S876]	ADNP S876	Cancer_only	-1.25	1.79	-1.88	1.13
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [T742]	MAP1A T742	CAF_only	-0.68	0.21	-1.88	1.55
P78559 1xPhospho [T504]	MAP1A T504	CAF_only	-0.68	0.21	-1.88	1.55
Q13459 2xPhospho [S1115;S1122]	MYO9B S1115;S1122	CAF_only	-2.11	1.29	-1.88	2.09
Q92993 1xPhospho [S90]	KAT5 S90	Cancer_and_CAF	-1.07	1.94	-1.88	1.88
P48634 1xPhospho [T782]	PRRC2A T782	Cancer_and_CAF	-1.03	1.58	-1.89	1.54
O60293 1xPhospho [T766]	ZFC3H1 T766	CAF_only	-1.84	0.84	-1.89	2.59
A6NMK8 1xPhospho [S100]	FAM196B S100	CAF_only	-1.34	0.93	-1.89	1.60
Q09666 2xPhospho [S5867;S5870]	AHNAK S5867;S5870	Cancer_only	-1.30	1.31	-1.89	0.71

Q99590 1xPhospho [S587]	SCAF11 S587	CAF_only	-1.10	0.70	-1.90	2.99
Q9HCM7 1xPhospho [S844]	FBRSL1 S844	Cancer_and_CAF	-1.17	1.41	-1.90	2.01
Q9NPD3 1xPhospho [S240]	EXOSC4 S240	CAF_only	0.70	0.35	-1.90	1.76
P42166 1xPhospho [S351]	TMPO S351	Cancer_only	-2.17	1.60	-1.91	0.66
Q14160 1xPhospho [S764]	SCRIB S764	Cancer_only	-1.54	1.32	-1.91	0.87
Q9P2B4 1xPhospho [S549]	CTTNBP2NL S549	Cancer_and_CAF	-1.56	2.16	-1.91	1.86
Q9UM82 1xPhospho [S372]	SPATA2 S372	CAF_only	-1.89	0.39	-1.91	1.67
Q9HCK8 1xPhospho [S562]	CHD8 S562	CAF_only	-0.34	0.27	-1.91	1.32
P28749 1xPhospho [T385]	RBL1 T385	CAF_only	-0.44	0.41	-1.91	1.86
Q9Y618 1xPhospho [S1971]	NCOR2 S1971	CAF_only	-0.29	0.12	-1.91	1.36
Q13428 1xPhospho [S381]	TCOF1 S381	CAF_only	-1.29	1.03	-1.92	1.63
P18206 1xPhospho [Y822]	VCL Y822	CAF_only	-2.39	1.01	-1.92	1.50
Q15633 2xPhospho [S142;S152]	TARBP2 S142;S152	CAF_only	-0.90	1.78	-1.92	3.07
P38398 1xPhospho [S434]	BRCA1 S434	Cancer_and_CAF	-1.40	1.95	-1.92	1.39
Q9HCD6 1xPhospho [S1476]	TANC2 S1476	CAF_only	-0.14	0.02	-1.92	1.40
Q8IYD8 1xPhospho [S52]	FANCM S52	CAF_only	-0.97	0.21	-1.92	1.43
P78347 1xPhospho [S823]	GTF2I S823	CAF_only	0.01	0.00	-1.93	1.39
Q8NFC6 1xPhospho [S2905]	BOD1L1 S2905	Cancer_only	-1.91	1.35	-1.94	0.95
Q8IWB6 [676-689]	TEX14 676-689	CAF_only	-1.83	1.07	-1.94	1.38
Q8IX03 1xPhospho [S947]	WWC1 S947	Cancer_only	-1.79	1.46	-1.94	0.71
Q3KQU3 1xPhospho [S517]	MAP7D1 S517	CAF_only	-1.12	1.12	-1.94	1.60
Q9Y4B5 2xPhospho [S741;S745]	MTCL1 S741;S745	CAF_only	-1.14	1.03	-1.95	1.98
Q9H5H4 2xPhospho [S104;S]	ZNF768 S104;S	CAF_only	-0.30	0.05	-1.95	1.51

P31629 1xPhospho [S2006]	HIVEP2 S2006	CAF_only	0.78	0.10	-1.95	1.89
Q0ZGT2 1xPhospho [S160]	NEXN S160	Cancer_only	-1.40	1.69	-1.95	0.70
P78347 1xPhospho [S412]	GTF2I S412	Cancer_only	-2.70	1.73	-1.96	1.02
Q9C0C9 1xPhospho [S87]	UBE2O S87	Cancer_only	-1.04	1.60	-1.96	1.08
P48681 1xPhospho [T315]	NES T315	Cancer_only	-1.71	1.49	-1.96	0.92
Q8NG31 1xPhospho [T1017]	CASC5 T1017	CAF_only	-0.29	0.10	-1.97	1.35
P25054 1xPhospho [S2671]	APC S2671	CAF_only	-1.12	1.00	-1.97	1.56
Q9UHD8 1xPhospho [T42]	Sep-09 T42	CAF_only	-0.89	0.81	-1.97	2.20
Q9Y448 1xPhospho [S171]	KNSTRN S171	CAF_only	-1.38	1.06	-1.97	1.84
Q9UHB6 1xPhospho [S225]	LIMA1 S225	Cancer_only	-2.32	1.51	-1.97	1.19
Q13243 1xPhospho [S153]	SRSF5 S153	CAF_only	-1.31	0.78	-1.98	1.99
Q9BY89 1xPhospho [T600]	KIAA1671 T600	CAF_only	-1.32	0.80	-1.98	2.14
P48681 1xPhospho [T338]	NES T338	CAF_only	-2.10	0.36	-1.98	1.45
P61247 1xPhospho [S238]	RPS3A S238	CAF_only	-0.92	0.44	-1.98	1.84
Q53F19 2xPhospho [S412;S415]	C17orf85 S412;S415	CAF_only	-0.39	0.23	-2.00	1.47
Q8IZ40 1xPhospho [S63]	RCOR2 S63	Cancer_only	-1.26	1.87	-2.00	0.88
P46087 1xPhospho [S732]	NOP2 S732	CAF_only	-1.13	0.68	-2.00	2.02
P62633 1xPhospho [S151]	CNBP S151	CAF_only	-1.40	1.27	-2.00	2.51
Q9NZJ5 1xPhospho [S555]	EIF2AK3 S555	CAF_only	-1.14	0.69	-2.00	1.41
O95684 2xPhospho [T165;T170]	FGFR1OP T165;T170	CAF_only	-0.70	0.58	-2.00	2.29
Q12888 2xPhospho [S1673;S1678]	TP53BP1 S1673;S1678	CAF_only	-0.72	0.52	-2.00	1.77
P33981 1xPhospho [S436]	TTK S436	CAF_only	-0.66	0.74	-2.00	2.20
Q9HCK8 1xPhospho [S1424]	CHD8 S1424	CAF_only	-0.58	0.29	-2.01	1.40

Q9BX63 1xPhospho [S505]	BRIP1 S505	Cancer_only	-1.50	1.99	-2.01	0.71
Q6PD62 1xPhospho [S941]	CTR9 S941	CAF_only	0.95	0.15	-2.01	1.34
P46013 1xPhospho [T2406]	MKI67 T2406	CAF_only	-1.59	1.01	-2.02	1.67
P82914 1xPhospho [S244]	MRPS15 S244	CAF_only	-2.00	0.42	-2.02	1.72
Q8NEV8 1xPhospho [S1074]	EXPH5 S1074	CAF_only	0.07	0.02	-2.02	3.33
P01106 2xPhospho [S347;S348]	MYC S347;S348	Cancer_only	-1.56	1.30	-2.02	0.65
Q9UGR2 1xPhospho [T972]	ZC3H7B T972	CAF_only	-0.55	0.44	-2.03	1.42
Q9NYB9 1xPhospho [S216]	ABI2 S216	CAF_only	-1.41	0.95	-2.03	2.10
Q13206 1xPhospho [S7]	DDX10 S7	CAF_only	-1.24	1.11	-2.03	1.33
Q9Y3T9 2xPhospho [S49;S]	NOC2L S49;S	CAF_only	-1.17	0.92	-2.03	1.55
Q6PJ61 1xPhospho [S240]	FBXO46 S240	Cancer_only	-1.13	1.32	-2.04	0.78
Q9Y5K6 2xPhospho [S510;S514]	CD2AP S510;S514	Cancer_only	-1.64	1.33	-2.04	0.95
O95251 2xPhospho [S50;S57]	KAT7 S50;S57	Cancer_only	-1.92	1.38	-2.04	1.13
P46013 1xPhospho [S1983]	MKI67 S1983	CAF_only	-1.10	0.52	-2.04	1.79
P38398 1xPhospho [S1174]	BRCA1 S1174	CAF_only	-0.88	0.88	-2.05	1.79
Q9ULW0 1xPhospho [S738]	TPX2 S738	CAF_only	-1.14	0.80	-2.05	1.84
P18858 1xPhospho [T195]	LIG1 T195	Cancer_and_CAF	-1.50	1.88	-2.05	1.56
Q9NVF7 1xPhospho [S344]	FBXO28 S344	Cancer_and_CAF	-1.44	1.43	-2.06	1.43
Q96DF8 1xPhospho [T339]	DGCR14 T339	Cancer_only	-1.26	2.41	-2.06	0.86
Q13459 1xPhospho [T1346]	MYO9B T1346	Cancer_only	-2.63	1.32	-2.06	1.20
Q9NWB6 1xPhospho [S94]	ARGLU1 S94	CAF_only	-1.53	0.58	-2.06	1.51
O95810 2xPhospho [S203;S204]	SDPR S203;S204	CAF_only	-1.86	1.04	-2.06	1.94
P25205 [701-724]	MCM3 701-724	Cancer_and_CAF	-1.32	1.59	-2.06	1.40

P13051 2xPhospho [T60;S64]	UNG T60;S64	CAF_only	-1.05	0.81	-2.06	1.88
Q9H4L5 2xPhospho [S251;S265]	OSBPL3 S251;S265	Cancer_only	-1.81	1.35	-2.07	0.63
Q9BQG0 1xPhospho [S1163]	MYBBP1A S1163	CAF_only	-1.02	0.95	-2.07	2.31
P38398 2xPhospho [S395;S398]	BRCA1 S395;S398	CAF_only	-0.55	0.91	-2.07	1.53
Q13625 2xPhospho [S556;S569]	TP53BP2 S556;S569	CAF_only	-0.24	0.18	-2.07	2.13
Q7Z417 2xPhospho [S212;S214]	NUFIP2 S212;S214	CAF_only	-0.99	0.71	-2.07	1.61
Q02952 1xPhospho [S386]	AKAP12 S386	Cancer_only	-1.44	2.03	-2.08	0.53
Q9UQ35 2xPhospho [S1423;S1424]	SRRM2 S1423;S1424	Cancer_only	-1.27	2.34	-2.08	1.09
Q52LW3 1xPhospho [S1185]	ARHGAP29 S1185	CAF_only	-1.33	0.68	-2.08	2.06
Q6PL18 1xPhospho [T1152]	ATAD2 T1152	CAF_only	-1.62	1.25	-2.08	1.60
Q8N4X5 1xPhospho [S651]	AFAP1L2 S651	CAF_only	0.11	0.02	-2.09	1.35
Q9H2Y7 [637-648]	ZNF106 637-648	Cancer_only	-1.46	1.38	-2.09	0.95
Q9HCL0 1xPhospho [S891]	PCDH18 S891	CAF_only	-1.53	0.75	-2.09	2.25
Q9NQW6 2xPhospho [S661;S664]	ANLN S661;S664	CAF_only	-2.31	0.92	-2.09	2.21
Q96Q89 1xPhospho [T1643]	KIF20B T1643	CAF_only	-2.03	1.00	-2.09	1.33
O15033 2xPhospho [S337;T343]	AREL1 S337;T343	CAF_only	-1.89	0.63	-2.09	1.63
Q96NW4 1xPhospho [S634]	ANKRD27 S634	CAF_only	-1.86	0.54	-2.09	2.32
Q12906 1xPhospho [S382]	ILF3 S382	CAF_only	-1.23	0.95	-2.10	1.80
P78347 1xPhospho [T558]	GTF2I T558	CAF_only	-1.47	1.08	-2.10	1.34
Q8N108 2xPhospho [S52;S53]	MIER1 S52;S53	CAF_only	-1.62	0.39	-2.10	1.62
Q96SB4 2xPhospho [S37;S51]	SRPK1 S37;S51	CAF_only	-0.93	1.03	-2.10	1.83
Q13352 1xPhospho [S60]	ITGB3BP S60	CAF_only	-1.12	1.21	-2.11	3.63
P46821 1xPhospho [T1067]	MAP1B T1067	CAF_only	-1.16	0.61	-2.11	1.38

O43482 [46-74]	OIP5 46-74	Cancer_only	-1.61	1.42	-2.11	0.94
Q01094 1xPhospho [S307]	E2F1 S307	Cancer_only	-1.35	1.94	-2.12	0.94
Q8TEC5 1xPhospho [S649]	SH3RF2 S649	Cancer_only	-1.12	1.61	-2.12	1.20
Q9BSJ6 [185-215]	FAM64A 185-215	CAF_only	-1.32	0.95	-2.12	1.44
P46013 1xPhospho [S2105]	MKI67 S2105	Cancer_only	-1.16	2.01	-2.13	1.20
P15923 1xPhospho [S379]	TCF3 S379	CAF_only	-1.50	0.83	-2.13	1.60
P18583 1xPhospho [S154]	SON S154	Cancer_only	-2.04	1.57	-2.13	1.11
P78345 1xPhospho [S235]	RPP38 S235	CAF_only	-1.41	1.14	-2.13	1.37
Q9H1E3 1xPhospho [S229]	NUCKS1 S229	CAF_only	0.95	0.16	-2.13	2.36
Q96L91 2xPhospho [S321;T/S]	EP400 S321;T/S	CAF_only	0.16	0.64	-2.13	1.37
Q96SN8 1xPhospho [S1238]	CDK5RAP2 S1238	CAF_only	-1.07	0.43	-2.14	1.97
Q9NQW6 1xPhospho [S97]	ANLN S97	CAF_only	-0.69	0.31	-2.14	1.61
O96028 1xPhospho [S437]	WHSC1 S437	Cancer_only	-1.37	1.83	-2.14	0.65
Q12888 [89-116]	TP53BP1 89-116	CAF_only	0.75	0.06	-2.15	1.40
Q9H792 1xPhospho [S1217]	PEAK1 S1217	Cancer_only	-2.62	1.68	-2.15	0.97
Q8IVJ1 1xPhospho [S76]	SLC41A1 S76	CAF_only	-1.91	0.61	-2.15	2.48
Q96JM3 1xPhospho [S507]	CHAMP1 S507	Cancer_only	-1.67	2.80	-2.15	0.86
Q5UIP0 1xPhospho [S1688]	RIF1 S1688	CAF_only	-0.42	0.36	-2.16	1.96
Q9UBS9 1xPhospho [S1103]	SUCO S1103	Cancer_only	-1.43	1.32	-2.16	1.03
Q9P2B7 1xPhospho [S288]	CFAP97 S288	Cancer_only	-1.27	1.55	-2.16	0.48
Q9BY12 1xPhospho [S86]	SCAPER S86	CAF_only	-1.97	0.97	-2.17	1.96
Q9Y4B5 1xPhospho [S1808]	MTCL1 S1808	Cancer_only	-2.41	1.92	-2.18	1.17
P30291 1xPhospho [T190]	WEE1 T190	CAF_only	-1.65	0.29	-2.18	1.84

P06400 1xPhospho [S249]	RB1 S249	CAF_only	-0.78	0.89	-2.18	1.33
Q8N3E9 1xPhospho [S573]	PLCD3 S573	CAF_only	-2.20	0.81	-2.18	1.36
Q04637 [202-235]	EIF4G1 202-235	Cancer_only	-1.34	1.74	-2.19	1.25
O60566 1xPhospho [S670]	BUB1B S670	CAF_only	-0.95	0.31	-2.20	1.57
P45973 1xPhospho [S14]	CBX5 S14	CAF_only	-1.21	0.58	-2.20	1.49
Q86WB0 2xPhospho [S24;T28]	ZC3HC1 S24;T28	Cancer_only	-1.78	1.44	-2.21	0.84
Q9UQ35 1xPhospho [S1616]	SRRM2 S1616	Cancer_only	-1.09	1.41	-2.21	1.29
Q5UIP0 1xPhospho [S1579]	RIF1 S1579	CAF_only	-0.95	0.41	-2.21	1.87
Q9UPQ0 1xPhospho [S207]	LIMCH1 S207	CAF_only	-1.83	0.72	-2.21	1.42
Q8NHM5 1xPhospho [S914]	KDM2B S914	Cancer_only	-2.05	1.38	-2.21	0.70
Q9UEG4 1xPhospho [T257]	ZNF629 T257	CAF_only	-3.39	0.44	-2.22	2.10
Q9H165 1xPhospho [T400]	BCL11A T400	CAF_only	-3.39	0.44	-2.22	2.10
Q15776 1xPhospho [T485]	ZKSCAN8 T485	CAF_only	-3.39	0.44	-2.22	2.10
Q3KP31 1xPhospho [T155]	ZNF791 T155	CAF_only	-3.39	0.44	-2.22	2.10
Q9UMS6 1xPhospho [S226]	SYNPO2 S226	Cancer_only	-2.17	1.49	-2.22	0.63
P46013 1xPhospho [S1131]	MKI67 S1131	Cancer_only	-1.66	1.74	-2.22	1.17
P46087 1xPhospho [S58]	NOP2 S58	CAF_only	-3.50	0.69	-2.22	1.67
Q9NZJ0 1xPhospho [T516]	DTL T516	CAF_only	-1.64	1.20	-2.23	1.33
Q9UIF9 1xPhospho [S1397]	BAZ2A S1397	CAF_only	-0.02	0.01	-2.23	1.62
P10244 1xPhospho [T266]	MYBL2 T266	Cancer_and_CAF	-1.29	2.42	-2.23	1.40
Q99808 1xPhospho [S269]	SLC29A1 S269	CAF_only	-2.12	1.04	-2.23	2.61
Q9UNE2 1xPhospho [S128]	RPH3AL S128	CAF_only	-1.29	0.84	-2.23	1.54
Q5VUA4 [1965-1976]	ZNF318 1965-1976	CAF_only	-1.61	0.53	-2.23	1.49

P42684 1xPhospho [S72]	ABL2 S72	Cancer_only	-1.32	2.31	-2.24	0.67
Q12906 1xPhospho [T592]	ILF3 T592	CAF_only	-2.44	0.36	-2.25	1.76
Q9NYZ3 1xPhospho [S461]	GTSE1 S461	CAF_only	-1.80	0.97	-2.26	3.15
Q15154 2xPhospho [S116;S119]	PCM1 S116;S119	CAF_only	-1.77	0.63	-2.27	1.39
Q86YC2 1xPhospho [S387]	PALB2 S387	CAF_only	-0.30	0.17	-2.27	1.62
Q9H4G0 1xPhospho [T489]	EPB41L1 T489	CAF_only	-1.66	1.17	-2.27	1.84
Q13586 [651-672]	STIM1 651-672	Cancer_only	-1.91	1.33	-2.28	0.85
Q9NYF3 1xPhospho [S162]	FAM53C S162	CAF_only	-0.54	0.21	-2.28	2.29
O15014 1xPhospho [T746]	ZNF609 T746	CAF_only	-1.44	1.07	-2.28	1.54
Q15154 1xPhospho [S991]	PCM1 S991	Cancer_only	-1.36	2.04	-2.28	0.63
Q5XUX0 1xPhospho [S33]	FBXO31 S33	Cancer_only	2.97	1.42	-2.28	0.40
O75132 1xPhospho [S1053]	ZBED4 S1053	Cancer_only	-2.26	1.43	-2.29	0.99
P11388 1xPhospho [S1495]	TOP2A S1495	CAF_only	-1.54	1.26	-2.29	1.72
Q15233 1xPhospho [T15]	NONO T15	CAF_only	-2.98	0.48	-2.29	1.96
P07919 1xPhospho [S13]	UQCRH S13	CAF_only	0.26	1.86	-2.29	1.75
Q96PV6 1xPhospho [S351]	LENG8 S351	CAF_only	-1.47	1.01	-2.30	1.56
Q14684 1xPhospho [S706]	RRP1B S706	CAF_only	-2.41	0.88	-2.30	2.12
Q8WWI1 1xPhospho [S276]	LMO7 S276	Cancer_only	-1.86	2.02	-2.30	0.77
Q5VZK9 1xPhospho [T1228]	LRRC16A T1228	CAF_only	-1.83	0.71	-2.31	1.84
P25054 2xPhospho [S2088;S2093]	APC S2088;S2093	Cancer_only	-2.51	2.30	-2.31	0.77
P35221 2xPhospho [S641;T645]	CTNNA1 S641;T645	CAF_only	-0.78	0.26	-2.32	1.72
Q9BZ95 1xPhospho [S590]	WHSC1L1 S590	Cancer_only	-1.80	1.43	-2.32	0.70
Q86XJ1 [184-205]	GAS2L3 184-205	CAF_only	-1.90	0.94	-2.32	1.73

Q86SQ0 1xPhospho [T574]	PHLDB2 T574	CAF_only	-1.80	0.61	-2.33	1.63
O00472 1xPhospho [S503]	ELL2 S503	CAF_only	-2.16	0.87	-2.34	1.65
Q14684 2xPhospho [S732;S736]	RRP1B S732;S736	Cancer_and_CAF	-1.82	1.95	-2.34	1.91
P46783 1xPhospho [S146]	RPS10 S146	Cancer_only	-2.24	1.83	-2.34	0.77
Q9BVJ6 1xPhospho [S52]	UTP14A S52	CAF_only	-0.81	0.23	-2.35	1.34
Q9NZJ5 [802-823]	EIF2AK3 802-823	Cancer_only	-2.08	2.09	-2.35	0.90
P18858 2xPhospho [S47;S51]	LIG1 S47;S51	CAF_only	-1.23	0.48	-2.35	1.58
Q9BXS6 1xPhospho [S60]	NUSAP1 S60	Cancer_only	-2.00	1.30	-2.35	0.79
Q8NDI1 1xPhospho [S408]	EHBP1 S408	CAF_only	-2.50	0.47	-2.35	1.51
Q9H9E1 1xPhospho [S124]	ANKRA2 S124	Cancer_and_CAF	-1.77	1.40	-2.36	1.43
Q53H80 1xPhospho [S21]	AKIRIN2 S21	CAF_only	-1.98	0.80	-2.36	2.89
P31350 [372-389]	RRM2 372-389	Cancer_and_CAF	-1.17	2.52	-2.36	1.41
B2RTY4 1xPhospho [S1299]	MYO9A S1299	CAF_only	-0.88	0.39	-2.36	2.58
P25054 1xPhospho [S2270]	APC S2270	CAF_only	-1.27	1.01	-2.37	2.21
Q5T5X7 1xPhospho [S93]	BEND3 S93	Cancer_only	-1.93	1.79	-2.37	0.55
P27816 2xPhospho [S787;S793]	MAP4 S787;S793	CAF_only	-2.71	0.37	-2.38	1.43
Q92917 1xPhospho [S388]	GPKOW S388	CAF_only	0.81	1.01	-2.38	1.63
P62753 1xPhospho [S244]	RPS6 S244	Cancer_only	-4.15	1.56	-2.39	0.75
O15318 1xPhospho [S157]	POLR3G S157	Cancer_only	-1.47	1.76	-2.39	1.01
Q9UDT6 1xPhospho [S294]	CLIP2 S294	CAF_only	-0.93	1.02	-2.40	1.56
Q71F23 2xPhospho [S53;S54]	CENPU S53;S54	CAF_only	-1.23	0.24	-2.41	1.38
O43707 1xPhospho [T840]	ACTN4 T840	Cancer_only	-2.68	1.89	-2.41	1.11

Q9P2E9 1xPhospho [T225];1xPhospho [T245];1xPhospho [T255]	RRBP1 T225;T245;T255	CAF_only	-1.95	1.30	-2.41	1.52
P37275 1xPhospho [S679]	ZEB1 S679	CAF_only	-1.87	1.16	-2.41	1.31
P11388 1xPhospho [S1393]	TOP2A S1393	Cancer_and_CAF	-2.45	1.52	-2.42	1.74
Q9BQG0 1xPhospho [S1241]	MYBBP1A S1241	CAF_only	-1.23	0.63	-2.43	2.03
P46013 1xPhospho [S2466]	MKI67 S2466	Cancer_only	-2.13	2.77	-2.45	0.81
Q5QJE6 1xPhospho [S117]	DNTTIP2 S117	Cancer_and_CAF	-1.74	2.69	-2.45	2.07
Q9HAW4 1xPhospho [S225]	CLSPN S225	CAF_only	-1.08	0.47	-2.45	1.89
Q03164 [2831-2855]	KMT2A 2831-2855	CAF_only	0.53	0.08	-2.45	1.59
Q9NQS7 1xPhospho [S311]	INCENP S311	CAF_only	-2.09	0.44	-2.46	1.39
Q99618 1xPhospho [S29]	CDCA3 S29	Cancer_only	-2.93	1.86	-2.46	1.05
P85037 2xPhospho [S213;S223]	FOXK1 S213;S223	CAF_only	-1.10	0.51	-2.48	2.03
P15822 2xPhospho [S1293;S1297]	HIVEP1 S1293;S1297	CAF_only	-0.76	0.34	-2.48	1.65
Q7RTP6 1xPhospho [S1310]	MICAL3 S1310	CAF_only	-1.89	0.61	-2.48	1.38
Q6T310 1xPhospho [S232]	RASL11A S232	CAF_only	-9.40	0.27	-2.49	1.36
Q7L590 1xPhospho [S54]	MCM10 S54	Cancer_only	-1.40	1.81	-2.49	0.47
Q8IWI9 1xPhospho [S2921]	MGA S2921	CAF_only	-1.95	0.66	-2.51	1.55
Q9Y2F5 1xPhospho [S516]	ICE1 S516	CAF_only	-2.33	0.57	-2.51	1.43
A1L390 1xPhospho [S962]	PLEKHG3 S962	Cancer_and_CAF	-2.88	1.42	-2.51	1.64
P18858 1xPhospho [S51]	LIG1 S51	CAF_only	-1.33	0.58	-2.51	1.61
O15014 2xPhospho [S743;T746]	ZNF609 S743;T746	CAF_only	-1.42	0.83	-2.52	2.26
P54132 1xPhospho [S304]	BLM S304	Cancer_only	-1.85	1.94	-2.52	0.65
Q09470 1xPhospho [S445]	KCNA1 S445	CAF_only	-5.16	0.38	-2.52	1.70

Q9NY27 1xPhospho [S226]	PPP4R2 S226	Cancer_and_CAF	-1.70	1.43	-2.53	1.58
Q0ZGT2 1xPhospho [S243]	NEXN S243	CAF_only	-1.77	0.83	-2.53	1.59
Q53GS9 1xPhospho [S82]	USP39 S82	Cancer_only	-1.20	1.52	-2.53	0.59
P17480 1xPhospho [S389]	UBTF S389	CAF_only	-1.19	0.49	-2.53	1.50
Q99666 1xPhospho [S1017]	RGPD5 S1017	Cancer_and_CAF	-1.44	1.35	-2.53	2.32
P49792 1xPhospho [S1993]	RANBP2 S1993	Cancer_and_CAF	-1.44	1.35	-2.53	2.32
Q9HAW4 1xPhospho [S744]	CLSPN S744	CAF_only	-0.69	0.49	-2.54	1.60
P35221 1xPhospho [S439]	CTNNA1 S439	Cancer_and_CAF	-1.11	1.73	-2.55	1.31
Q5QJE6 1xPhospho [T610]	DNTTIP2 T610	CAF_only	-2.00	0.89	-2.55	1.57
Q8IVL0 1xPhospho [T656]	NAV3 T656	CAF_only	-1.03	0.37	-2.55	1.87
Q7Z6E9 1xPhospho [T1066]	RBBP6 T1066	Cancer_only	-2.07	1.37	-2.56	0.69
Q9H6Z4 1xPhospho [T363]	RANBP3 T363	CAF_only	-1.61	0.71	-2.57	2.49
Q5UIP0 1xPhospho [S2196]	RIF1 S2196	Cancer_and_CAF	-1.54	1.31	-2.57	2.30
Q9UHQ9 1xPhospho [S169]	CYB5R1 S169	CAF_only	-2.86	0.33	-2.57	2.36
Q9NYZ3 1xPhospho [S243]	GTSE1 S243	CAF_only	-1.11	0.22	-2.58	1.84
P46013 1xPhospho [S1329];1xPhospho [S1571]	MKI67 S1329;S1571	CAF_only	-3.66	0.81	-2.61	1.69
O95072 1xPhospho [S286]	REC8 S286	CAF_only	-1.78	0.91	-2.61	1.62
Q9GZR7 [78-97]	DDX24 78-97	Cancer_only	-1.44	1.99	-2.62	0.45
Q16643 1xPhospho [S134]	DBN1 S134	Cancer_only	-2.25	1.60	-2.62	0.92
Q9UKL3 [927-953]	CASP8AP2 927-953	Cancer_and_CAF	-2.02	1.55	-2.62	1.92
Q99618 2xPhospho [S64;T/S]	CDCA3 S64;T/S	CAF_only	-1.54	0.60	-2.63	1.52
Q99547 1xPhospho [T147]	MPHOSPH6 T147	CAF_only	-1.72	1.05	-2.63	2.98

Q9Y2X3 2xPhospho [S502;S514]	NOP58 S502;S514	Cancer_and_CAF	-1.66	1.35	-2.64	2.09
Q92968 1xPhospho [S393]	PEX13 S393	CAF_only	-2.51	0.23	-2.64	1.37
Q9BY89 1xPhospho [S749]	KIAA1671 S749	Cancer_only	-2.93	1.30	-2.65	1.24
P29374 1xPhospho [S789]	ARID4A S789	CAF_only	-0.23	0.06	-2.65	1.95
Q8N1F8 1xPhospho [S482]	STK11IP S482	Cancer_only	-1.78	1.66	-2.65	0.79
Q3KQU3 1xPhospho [S410]	MAP7D1 S410	CAF_only	-2.43	1.07	-2.65	1.93
Q9P1Y6 2xPhospho [S1127;S1128]	PHRF1 S1127;S1128	CAF_only	-2.14	0.87	-2.66	1.34
Q03252 2xPhospho [T34;S37]	LMNB2 T34;S37	Cancer_and_CAF	-3.19	1.45	-2.67	3.00
Q6IQ23 1xPhospho [S612]	PLEKHA7 S612	CAF_only	-1.10	0.41	-2.67	2.37
Q9Y2F5 1xPhospho [S892]	ICE1 S892	Cancer_only	-1.44	1.51	-2.68	0.94
Q9ULJ3 1xPhospho [S422]	ZBTB21 S422	Cancer_only	-1.87	2.02	-2.68	1.09
O43896 1xPhospho [S494]	KIF1C S494	CAF_only	-1.96	0.93	-2.69	1.79
Q8N556 2xPhospho [S665;S668]	AFAP1 S665;S668	Cancer_only	-2.45	1.34	-2.69	0.81
Q7Z417 1xPhospho [T220]	NUFIP2 T220	CAF_only	-2.05	0.80	-2.70	1.81
Q8IY18 1xPhospho [S12]	SMC5 S12	CAF_only	-1.22	0.38	-2.70	1.44
O95067 1xPhospho [S92]	CCNB2 S92	CAF_only	-1.64	0.56	-2.70	1.60
O75376 [1190-1199]	NCOR1 1190-1199	CAF_only	-1.18	1.10	-2.70	1.62
P48681 1xPhospho [S702]	NES S702	CAF_only	-2.54	1.21	-2.71	1.61
P21333 1xPhospho [S1084]	FLNA S1084	CAF_only	-3.06	0.48	-2.71	1.56
P06748 1xPhospho [S254]	NPM1 S254	CAF_only	-2.97	1.02	-2.71	2.16
P18858 2xPhospho [S66;S76]	LIG1 S66;S76	CAF_only	-1.42	0.47	-2.71	1.52
O95251 1xPhospho [S111]	KAT7 S111	Cancer_only	-1.99	1.87	-2.71	0.97
Q68CP4 1xPhospho [S243]	HGSNAT S243	Cancer_and_CAF	-1.63	1.37	-2.71	1.63

Q5BKX8 1xPhospho [T336]	MURC T336	Cancer_only	-2.45	1.85	-2.71	1.24
P0DJD0 1xPhospho [S1002]	RGPD1 S1002	CAF_only	-0.79	0.56	-2.72	1.81
Q76I76 1xPhospho [S36]	SSH2 S36	Cancer_only	-1.51	2.05	-2.72	1.16
Q8NFC6 1xPhospho [S3019]	BOD1L1 S3019	Cancer_only	-1.28	1.63	-2.75	1.20
Q9BX63 1xPhospho [T989]	BRIP1 T989	CAF_only	-0.65	0.17	-2.75	1.59
Q5VWN6 1xPhospho [S1541]	FAM208B S1541	Cancer_only	-1.91	1.42	-2.76	0.91
O60566 1xPhospho [S574]	BUB1B S574	CAF_only	-1.00	0.60	-2.77	1.33
Q96H22 1xPhospho [S282]	CENPN S282	CAF_only	-0.12	0.03	-2.77	1.35
Q9H8V3 1xPhospho [S866]	ECT2 S866	Cancer_only	-2.46	1.99	-2.78	0.83
Q09666 1xPhospho [S5863]	AHNAK S5863	Cancer_and_CAF	-3.08	1.53	-2.79	1.51
Q14493 1xPhospho [S23]	SLBP S23	Cancer_only	-2.28	1.47	-2.80	0.67
P06400 1xPhospho [T373]	RB1 T373	CAF_only	-0.23	0.09	-2.81	1.40
Q6UB98 1xPhospho [S630]	ANKRD12 S630	Cancer_only	-1.77	2.17	-2.81	1.00
Q92576 1xPhospho [S125]	PHF3 S125	CAF_only	-1.61	1.28	-2.82	1.83
Q69YH5 1xPhospho [S210]	CDCA2 S210	CAF_only	-2.05	1.07	-2.82	1.77
P29966 2xPhospho [S145;S/T]	MARCKS S145;S/T	Cancer_and_CAF	-3.30	1.84	-2.82	2.10
Q9BXK1 1xPhospho [S109]	KLF16 S109	CAF_only	-1.94	1.25	-2.83	1.42
Q5T200 1xPhospho [S1279]	ZC3H13 S1279	CAF_only	-0.18	0.02	-2.83	1.54
Q96JM3 1xPhospho [S603]	CHAMP1 S603	CAF_only	-1.77	0.74	-2.85	1.77
Q8IYB3 2xPhospho [S530;S532]	SRRM1 S530;S532	CAF_only	-1.80	0.30	-2.86	1.92
Q7L2J0 1xPhospho [S254]	MEPCE S254	Cancer_and_CAF	-1.87	1.50	-2.89	1.36
Q14493 2xPhospho [S111;S114]	SLBP S111;S114	CAF_only	-4.08	0.32	-2.89	1.47
Q6PL18 [734-766]	ATAD2 734-766	CAF_only	-1.69	0.69	-2.90	1.74

O75691 1xPhospho [S39]	UTP20 S39	Cancer_only	-3.17	1.36	-2.91	0.54
Q5TCQ9 1xPhospho [S659]	MAGI3 S659	CAF_only	-1.82	0.86	-2.91	2.02
Q68DK7 1xPhospho [S362]	MSL1 S362	CAF_only	-1.86	1.17	-2.91	1.57
Q9NZJ0 2xPhospho [S511;S512]	DTL S511;S512	CAF_only	-1.24	0.74	-2.92	1.42
O60669 1xPhospho [S448]	SLC16A7 S448	Cancer_only	-3.82	1.45	-2.92	0.57
Q5VWN6 2xPhospho [S1539;S1541]	FAM208B S1539;S1541	CAF_only	-1.82	0.94	-2.92	1.51
P15822 1xPhospho [S1753]	HIVEP1 S1753	CAF_only	-0.43	0.07	-2.93	1.54
P46013 1xPhospho [S2505]	MKI67 S2505	Cancer_and_CAF	-2.10	1.94	-2.93	2.13
Q12834 1xPhospho [T106]	CDC20 T106	CAF_only	-0.18	0.03	-2.94	1.58
Q96QE3 1xPhospho [S86]	ATAD5 S86	CAF_only	-1.10	1.14	-2.95	3.25
O15014 1xPhospho [S1055]	ZNF609 S1055	Cancer_only	-1.53	2.06	-2.95	1.01
Q9P270 1xPhospho [S353]	SLAIN2 S353	Cancer_only	-3.23	1.75	-2.96	0.83
Q9UPP1 1xPhospho [S880]	PHF8 S880	CAF_only	-1.87	1.22	-2.97	1.40
P56181 1xPhospho [S53]	NDUFV3 S53	CAF_only	-4.05	0.44	-2.97	1.41
Q9BZ95 1xPhospho [S150]	WHSC1L1 S150	CAF_only	-1.71	0.88	-2.98	1.45
Q5UIP0 1xPhospho [S2144]	RIF1 S2144	CAF_only	-2.21	1.14	-2.98	3.18
P06400 1xPhospho [T356]	RB1 T356	CAF_only	-1.53	1.15	-3.00	1.34
Q9C086 1xPhospho [S63]	INO80B S63	Cancer_only	-2.55	1.54	-3.01	1.17
Q9H501 1xPhospho [S153]	ESF1 S153	CAF_only	-1.55	0.58	-3.02	2.06
Q6UN15 1xPhospho [T258]	FIP1L1 T258	CAF_only	-1.93	0.52	-3.03	1.57
O14681 2xPhospho [S326;S330]	EI24 S326;S330	Cancer_and_CAF	-2.28	1.97	-3.03	2.12
Q00613 2xPhospho [S368;T369]	HSF1 S368;T369	Cancer_only	-1.40	2.13	-3.03	1.23
Q92626 1xPhospho [S882]	PXDN S882	Cancer_only	-1.91	1.33	-3.05	1.01

Q16512 1xPhospho [S562]	PKN1 S562	CAF_only	-1.59	0.86	-3.06	1.79
O15014 1xPhospho [S433]	ZNF609 S433	CAF_only	-2.29	0.95	-3.07	1.33
Q9HAW4 1xPhospho [S762]	CLSPN S762	CAF_only	-2.47	1.00	-3.07	1.69
Q6P0N0 1xPhospho [S824]	MIS18BP1 S824	CAF_only	-2.88	0.96	-3.08	1.36
Q13428 1xPhospho [S807]	TCOF1 S807	Cancer_and_CAF	-3.03	1.31	-3.09	3.45
Q15311 2xPhospho [S29;S34]	RALBP1 S29;S34	Cancer_and_CAF	-1.56	1.37	-3.09	1.57
Q7Z417 [570-581]	NUFIP2 570-581	CAF_only	-1.35	0.54	-3.11	1.51
Q70CQ2 1xPhospho [T3350]	USP34 T3350	Cancer_only	-1.27	1.75	-3.12	1.22
O14974 1xPhospho [S299]	PPP1R12A S299	Cancer_only	-2.88	1.42	-3.13	1.19
A6NI28 [676-689]	ARHGAP42 676-689	CAF_only	0.25	0.20	-3.13	1.53
Q9C0B5 1xPhospho [S499]	ZDHHC5 S499	CAF_only	-4.63	0.35	-3.14	2.02
P48681 1xPhospho [S842]	NES S842	Cancer_and_CAF	-3.13	1.44	-3.14	1.71
Q96T88 1xPhospho [S639]	UHRF1 S639	Cancer_only	-1.65	1.35	-3.14	0.75
Q9P206 2xPhospho [S107;S/T/Y]	KIAA1522 S107;S/T/Y	CAF_only	-0.84	0.37	-3.15	1.35
B2RTY4 1xPhospho [S1230]	MYO9A S1230	CAF_only	-2.57	0.64	-3.15	1.82
P17706 1xPhospho [S304]	PTPN2 S304	CAF_only	-1.55	0.86	-3.17	1.42
P35269 1xPhospho [S377]	GTF2F1 S377	CAF_only	-0.69	0.22	-3.17	3.23
O15061 1xPhospho [T598]	SYNM T598	Cancer_only	-2.57	1.57	-3.18	0.73
Q6PL18 2xPhospho [S342;S/Y]	ATAD2 S342;S/Y	CAF_only	-3.62	0.89	-3.18	1.91
Q86Y91 1xPhospho [S404]	KIF18B S404	CAF_only	-1.75	1.14	-3.18	2.08
P41440 1xPhospho [S499]	SLC19A1 S499	Cancer_only	-5.25	1.42	-3.19	0.71
P26358 1xPhospho [S143]	DNMT1 S143	Cancer_only	-2.80	1.39	-3.19	0.65
Q5UIP0 1xPhospho [S1554]	RIF1 S1554	CAF_only	-1.48	0.86	-3.20	1.79

O75683 1xPhospho [S74]	SURF6 S74	CAF_only	-4.02	0.39	-3.21	1.36
Q8NEY1 1xPhospho [S1862]	NAV1 S1862	CAF_only	-3.01	1.00	-3.21	1.49
Q7Z4H7 1xPhospho [S552]	HAUS6 S552	Cancer_only	-2.32	1.52	-3.21	0.84
Q9Y490 1xPhospho [S425]	TLN1 S425	CAF_only	-1.38	1.12	-3.24	1.34
P01213 2xPhospho [S125;T/S]	PDYN S125;T/S	CAF_only	-1.57	0.91	-3.24	1.42
Q86WB0 1xPhospho [T28]	ZC3HC1 T28	Cancer_and_CAF	-2.54	1.33	-3.26	1.90
P19338 1xPhospho [T99]	NCL T99	CAF_only	-3.48	0.55	-3.27	2.72
O75398 1xPhospho [T312]	DEAF1 T312	Cancer_only	-2.20	1.70	-3.27	0.91
Q9BY12 1xPhospho [S899]	SCAPER S899	CAF_only	-2.78	0.96	-3.29	1.41
Q9UGN5 1xPhospho [S34]	PARP2 S34	CAF_only	-2.22	1.17	-3.30	1.68
Q9UMS6 1xPhospho [S638]	SYNPO2 S638	CAF_only	-1.95	1.01	-3.30	1.40
P54132 [324-339]	BLM 324-339	Cancer_only	-2.38	2.24	-3.30	0.75
Q9UNF1 1xPhospho [T72]	MAGED2 T72	CAF_only	-1.22	0.62	-3.32	1.42
Q7Z5J4 1xPhospho [T1136]	RAI1 T1136	Cancer_only	-2.21	1.87	-3.32	1.24
Q12834 1xPhospho [T70]	CDC20 T70	Cancer_and_CAF	-2.25	1.41	-3.32	1.30
O76021 1xPhospho [T415]	RSL1D1 T415	CAF_only	-3.39	0.67	-3.33	1.54
Q6P0N0 1xPhospho [S1131]	MIS18BP1 S1131	CAF_only	-2.79	0.66	-3.34	1.48
Q99618 1xPhospho [S87]	CDCA3 S87	CAF_only	-2.71	1.29	-3.34	1.46
Q8WYP5 1xPhospho [T1257]	AHCTF1 T1257	CAF_only	-2.93	0.58	-3.35	1.49
Q92890 1xPhospho [S247]	UFD1L S247	Cancer_only	-2.18	1.63	-3.35	1.27
Q8WY36 1xPhospho [T468]	BBX T468	CAF_only	-1.44	0.74	-3.40	2.03
O15344 2xPhospho [S92;S96]	MID1 S92;S96	CAF_only	-2.81	0.50	-3.41	1.40
Q96JM2 1xPhospho [S688]	ZNF462 S688	Cancer_only	-1.69	1.46	-3.42	0.80

O96028 1xPhospho [T544]	WHSC1 T544	CAF_only	-2.03	0.75	-3.43	1.31
Q13112 2xPhospho [T432;T433]	CHAF1B T432;T433	Cancer_only	-2.43	1.40	-3.46	0.95
Q9BY77 1xPhospho [S368]	POLDIP3 S368	CAF_only	-3.22	0.60	-3.46	1.85
P01106 2xPhospho [S344;T350]	MYC S344;T350	Cancer_and_CAF	-2.20	1.49	-3.49	2.61
Q6IE81 1xPhospho [S603]	JADE1 S603	CAF_only	-1.25	0.53	-3.49	1.40
Q8WYP5 1xPhospho [S1283]	AHCTF1 S1283	CAF_only	-2.61	0.99	-3.51	2.23
Q8TEK3 2xPhospho [S826;S834]	DOT1L S826;S834	CAF_only	-2.51	0.92	-3.51	2.08
Q5UIP0 1xPhospho [S2243]	RIF1 S2243	Cancer_and_CAF	-1.57	1.34	-3.52	2.06
Q6N043 1xPhospho [T514]	ZNF280D T514	CAF_only	-3.79	0.40	-3.53	1.55
Q9H792 1xPhospho [S861]	PEAK1 S861	CAF_only	-4.05	0.97	-3.53	1.45
Q9NR30 1xPhospho [S71]	DDX21 S71	CAF_only	-1.31	0.87	-3.53	1.68
O76021 1xPhospho [S427]	RSL1D1 S427	CAF_only	-1.10	1.05	-3.54	1.45
P01106 1xPhospho [S348]	MYC S348	Cancer_and_CAF	-1.90	1.84	-3.55	3.83
Q15047 1xPhospho [S1066]	SETDB1 S1066	Cancer_only	-2.51	1.63	-3.55	1.13
Q7L4E1 1xPhospho [S111]	FAM73B S111	CAF_only	-1.81	1.00	-3.56	1.70
O96028 [405-425]	WHSC1 405-425	Cancer_only	-3.41	1.71	-3.57	1.09
Q7L590 1xPhospho [T85]	MCM10 T85	Cancer_and_CAF	-2.13	1.69	-3.59	1.32
O15381 1xPhospho [T138]	NVL T138	CAF_only	-2.69	1.03	-3.59	1.86
P01106 [341-355]	MYC 341-355	Cancer_and_CAF	-2.21	1.64	-3.61	1.42
Q5UIP0 1xPhospho [S2393]	RIF1 S2393	Cancer_only	-2.72	1.68	-3.64	1.23
Q9Y6A5 1xPhospho [S434]	TACC3 S434	CAF_only	-3.18	0.80	-3.65	1.35
Q13416 1xPhospho [T226]	ORC2 T226	CAF_only	-2.24	1.01	-3.65	1.83
Q8NEM0 1xPhospho [S333]	MCPH1 S333	CAF_only	-2.78	0.28	-3.66	2.35

Q13330 [568-582]	MTA1 568-582	Cancer_and_CAF	-2.75	1.51	-3.66	1.36
Q9NQW6 1xPhospho [S72]	ANLN S72	Cancer_and_CAF	-3.21	1.77	-3.68	1.97
Q14684 1xPhospho [S732]	RRP1B S732	CAF_only	-2.06	0.67	-3.69	3.19
P13051 1xPhospho [T60]	UNG T60	CAF_only	-2.16	1.00	-3.69	1.83
O60292 1xPhospho [S1534]	SIPA1L3 S1534	CAF_only	-2.52	0.91	-3.70	1.57
Q9HCK8 1xPhospho [S2211]	CHD8 S2211	CAF_only	-2.44	0.67	-3.70	1.41
Q6IAA8 1xPhospho [S27]	LAMTOR1 S27	Cancer_and_CAF	-3.34	2.15	-3.70	1.68
Q96GN5 1xPhospho [S117]	CDCA7L S117	Cancer_and_CAF	-2.05	1.37	-3.71	1.52
P07197 1xPhospho [S628];1xPhospho [S641];1xPhospho [S654]	NEFM S628;S641;S654	CAF_only	-1.30	0.73	-3.72	1.57
Q96T88 2xPhospho [S91;S95]	UHRF1 S91;S95	Cancer_only	-2.48	1.46	-3.72	1.06
Q99741 1xPhospho [S45]	CDC6 S45	CAF_only	-1.58	0.53	-3.74	1.33
O14617 2xPhospho [S686;S688]	AP3D1 S686;S688	Cancer_and_CAF	-2.32	1.40	-3.74	1.55
P0DJD0 1xPhospho [S1519]	RGPD1 S1519	Cancer_and_CAF	-2.44	1.60	-3.81	1.66
P49792 1xPhospho [S2510]	RANBP2 S2510	Cancer_and_CAF	-2.44	1.60	-3.81	1.66
Q99666 1xPhospho [S1534]	RGPD5 S1534	Cancer_and_CAF	-2.44	1.60	-3.81	1.66
Q9H582 1xPhospho [T1020]	ZNF644 T1020	Cancer_only	-3.38	1.40	-3.83	1.00
Q9NTJ4 2xPhospho [S480;T482]	MAN2C1 S480;T482	CAF_only	-4.49	0.50	-3.84	1.42
Q86V81 1xPhospho [S8]	ALYREF S8	CAF_only	-0.58	0.10	-3.85	1.58
Q7Z417 [206-222]	NUFIP2 206-222	CAF_only	-2.62	0.79	-3.86	1.80
Q14493 1xPhospho [S111]	SLBP S111	CAF_only	-3.75	1.19	-3.86	1.65
Q99504 1xPhospho [T269]	EYA3 T269	CAF_only	-2.26	1.00	-3.87	1.34
Q9UIF9 1xPhospho [S1783]	BAZ2A S1783	CAF_only	-2.52	0.83	-3.88	1.48

Q9H4G0 2xPhospho [S75;T79]	EPB41L1 S75;T79	Cancer_only	-2.66	1.80	-3.88	0.84
Q9UKL3 1xPhospho [T1340]	CASP8AP2 T1340	CAF_only	-2.10	1.20	-3.89	1.58
P29966 2xPhospho [T150;T/S]	MARCKS T150;T/S	Cancer_only	-2.94	1.40	-3.90	1.18
Q13112 1xPhospho [S429]	CHAF1B S429	Cancer_only	-2.58	1.82	-3.91	0.88
P35580 1xPhospho [S1965]	MYH10 S1965	Cancer_only	-3.12	1.33	-3.94	1.06
P10114 1xPhospho [S11]	RAP2A S11	CAF_only	-3.24	1.29	-3.97	1.81
O15446 1xPhospho [S285]	CD3EAP S285	CAF_only	-2.11	0.88	-3.98	1.35
Q6P0N0 2xPhospho [T821;S824]	MIS18BP1 T821;S824	CAF_only	-3.41	1.24	-4.03	1.66
Q3V6T2 1xPhospho [S1675]	CCDC88A S1675	Cancer_and_CAF	-2.55	1.35	-4.03	2.07
Q96T88 1xPhospho [S91]	UHRF1 S91	CAF_only	-2.41	1.18	-4.07	2.13
P49023 1xPhospho [S258]	PXN S258	Cancer_and_CAF	-1.74	1.63	-4.07	1.32
Q13105 1xPhospho [S357]	ZBTB17 S357	Cancer_and_CAF	-3.34	1.90	-4.09	1.67
Q8IYH5 1xPhospho [S113]	ZZZ3 S113	CAF_only	-2.27	0.52	-4.11	1.50
Q7RTV3 1xPhospho [S310]	ZNF367 S310	Cancer_and_CAF	-2.54	1.51	-4.11	1.49
Q9HAW4 1xPhospho [S703]	CLSPN S703	CAF_only	-1.60	0.50	-4.12	1.30
Q9Y2U8 1xPhospho [S280]	LEMD3 S280	CAF_only	-2.58	1.01	-4.13	3.44
Q96SB8 1xPhospho [S11]	SMC6 S11	CAF_only	-3.31	0.86	-4.18	2.21
Q9NQW6 1xPhospho [S642]	ANLN S642	CAF_only	-3.91	0.92	-4.19	1.62
O60292 1xPhospho [S1254]	SIPA1L3 S1254	CAF_only	-3.39	0.95	-4.20	1.49
O94782 1xPhospho [S313]	USP1 S313	CAF_only	-2.01	0.52	-4.20	1.66
Q6IE81 1xPhospho [S743]	JADE1 S743	CAF_only	-2.78	0.98	-4.22	1.98
P07948 1xPhospho [Y316]	LYN Y316	Cancer_only	-3.91	1.68	-4.23	0.95
Q9NYP3 1xPhospho [S361]	DONSON S361	CAF_only	-2.65	0.65	-4.27	2.74

Q68DK7 1xPhospho [T386]	MSL1 T386	CAF_only	-2.92	1.18	-4.27	2.46
O43148 1xPhospho [T77]	RNMT T77	CAF_only	-2.07	0.78	-4.28	1.45
Q15397 1xPhospho [S77]	KIAA0020 S77	Cancer_and_CAF	-2.87	1.40	-4.29	1.45
P15822 1xPhospho [S130]	HIVEP1 S130	Cancer_and_CAF	-2.34	1.46	-4.29	1.37
Q9UIG0 1xPhospho [S349]	BAZ1B S349	CAF_only	-2.39	1.02	-4.30	1.68
O96028 2xPhospho [T115;T]	WHSC1 T115;T	Cancer_and_CAF	-2.59	1.31	-4.31	1.31
Q8IX21 1xPhospho [T551]	FAM178A T551	Cancer_only	-2.43	2.18	-4.35	0.84
P51965 1xPhospho [T28]	UBE2E1 T28	CAF_only	-3.08	0.53	-4.39	1.42
Q9HAW4 2xPhospho [S65;S67]	CLSPN S65;S67	Cancer_only	-2.01	1.83	-4.41	1.13
P46013 1xPhospho [S357]	MKI67 S357	CAF_only	-3.37	1.06	-4.41	1.77
O43151 2xPhospho [T792;S801]	TET3 T792;S801	CAF_only	-2.75	1.02	-4.46	1.82
A1L390 1xPhospho [S827]	PLEKHG3 S827	Cancer_and_CAF	-2.60	3.51	-4.47	1.56
Q9BVI0 1xPhospho [S159]	PHF20 S159	CAF_only	-2.50	0.76	-4.48	1.88
Q6VY07 1xPhospho [S495]	PACS1 S495	CAF_only	-2.64	0.90	-4.49	2.67
Q8N5I9 1xPhospho [S178]	C12orf45 S178	CAF_only	-2.23	0.59	-4.53	1.72
Q92618 1xPhospho [T57]	ZNF516 T57	CAF_only	-6.11	0.38	-4.55	1.87
Q9NRZ9 2xPhospho [S833;S]	HELLS S833;S	Cancer_only	-3.67	1.47	-4.57	1.19
Q6PL18 1xPhospho [S1233]	ATAD2 S1233	CAF_only	-1.18	0.20	-4.58	1.69
Q03252 2xPhospho [S421;S424]	LMNB2 S421;S424	CAF_only	-2.21	1.05	-4.59	2.14
Q99728 1xPhospho [T299]	BARD1 T299	CAF_only	-2.81	0.80	-4.59	1.78
Q9ULM3 [115-121]	YEATS2 115-121	Cancer_and_CAF	-2.97	1.50	-4.65	1.91
Q15555 1xPhospho [S229]	MAPRE2 S229	CAF_only	-1.95	0.27	-4.66	1.72
O95239 1xPhospho [T799]	KIF4A T799	CAF_only	-4.12	0.99	-4.69	1.45

P46013 1xPhospho [T2259]	MKI67 T2259	CAF_only	-5.09	0.71	-4.74	1.32
Q9NQS7 1xPhospho [S481]	INCENP S481	CAF_only	-3.48	1.29	-4.77	1.40
P10243 1xPhospho [S7]	MYBL1 S7	CAF_only	-3.05	1.29	-4.81	1.31
O75175 1xPhospho [S299]	CNOT3 S299	CAF_only	-2.45	0.68	-4.95	2.49
Q92922 1xPhospho [T398]	SMARCC1 T398	Cancer_and_CAF	-2.61	2.32	-4.98	3.64
P17342 1xPhospho [S533]	NPR3 S533	CAF_only	-2.27	1.25	-5.08	1.67
O96028 1xPhospho [T110]	WHSC1 T110	Cancer_and_CAF	-3.25	1.34	-5.09	1.44
Q9NS91 1xPhospho [S164]	RAD18 S164	CAF_only	-3.63	1.28	-5.14	1.63
O95425 1xPhospho [S1120]	SVIL S1120	Cancer_only	-3.96	1.60	-5.14	1.26
P28290 2xPhospho [S153;S156]	SSFA2 S153;S156	Cancer_only	-1.36	1.65	-5.15	0.85
Q9H8V3 1xPhospho [T359]	ECT2 T359	CAF_only	-2.63	0.79	-5.15	1.36
O15446 [271-288]	CD3EAP 271-288	CAF_only	-2.72	1.03	-5.16	1.66
Q5W0B1 1xPhospho [S210]	RNF219 S210	CAF_only	-1.30	0.33	-5.17	1.36
Q5VWN6 1xPhospho [S444]	FAM208B S444	CAF_only	-7.81	0.40	-5.18	1.98
O96028 1xPhospho [S121]	WHSC1 S121	CAF_only	-3.71	1.06	-5.18	3.03
Q92522 1xPhospho [S31]	H1FX S31	CAF_only	-1.77	0.34	-5.19	1.46
Q6P4F7 1xPhospho [S847]	ARHGAP11A S847	Cancer_only	-4.70	1.60	-5.20	0.94
Q01518 1xPhospho [S34]	CAP1 S34	CAF_only	-2.60	0.49	-5.21	1.89
Q8WYH8 2xPhospho [S148;T152]	ING5 S148;T152	CAF_only	-3.48	1.15	-5.22	1.68
P51587 1xPhospho [S1818]	BRCA2 S1818	CAF_only	-3.91	0.84	-5.25	1.74
P46013 1xPhospho [S859]	MKI67 S859	CAF_only	-3.86	1.05	-5.29	1.33
Q7Z5J4 1xPhospho [S1551]	RAI1 S1551	Cancer_only	-3.16	1.39	-5.30	1.21
Q9NRL2 1xPhospho [S1279]	BAZ1A S1279	CAF_only	-3.72	0.68	-5.33	1.62

P16402 1xPhospho [T147]	HIST1H1D T147	CAF_only	-4.60	0.42	-5.33	1.47
Q3KQU3 1xPhospho [S503]	MAP7D1 S503	Cancer_only	-2.73	3.83	-5.34	1.16
Q08945 2xPhospho [T642;S]	SSRP1 T642;S	CAF_only	-3.02	1.19	-5.36	1.57
Q14493 1xPhospho [S182]	SLBP S182	CAF_only	-3.49	0.96	-5.41	1.72
Q13111 1xPhospho [S203]	CHAF1A S203	CAF_only	-3.28	0.50	-5.42	1.86
O95983 1xPhospho [S85]	MBD3 S85	Cancer_only	-4.22	1.46	-5.46	1.09
Q29RF7 1xPhospho [T1208]	PDS5A T1208	Cancer_only	-3.50	1.33	-5.48	1.21
Q9BVI0 1xPhospho [S488]	PHF20 S488	CAF_only	-3.73	0.80	-5.85	2.06
Q8TEK3 1xPhospho [T355]	DOT1L T355	CAF_only	-3.85	0.95	-5.89	1.49
Q6ZN18 1xPhospho [S371]	AEBP2 S371	CAF_only	-3.53	0.39	-5.91	1.76
Q7L590 1xPhospho [S644]	MCM10 S644	Cancer_only	-3.71	1.41	-5.92	1.27
P05412 1xPhospho [S63]	JUN S63	CAF_only	-5.42	1.13	-6.03	2.39
Q5BKX8 1xPhospho [T227]	MURC T227	CAF_only	-4.80	0.68	-6.10	1.48
Q14978 1xPhospho [T238]	NOLC1 T238	CAF_only	-4.62	0.70	-6.25	1.51
Q9H582 1xPhospho [S1189]	ZNF644 S1189	CAF_only	-2.85	0.80	-6.26	2.21
Q9NZJ0 1xPhospho [S656]	DTL S656	CAF_only	-3.61	0.74	-6.56	1.84
P10412 1xPhospho [S187]	HIST1H1E S187	CAF_only	-7.33	0.61	-6.90	1.71
P10412 1xPhospho [T146]	HIST1H1E T146	CAF_only	-6.05	0.67	-6.93	1.34
Q9HAW4 1xPhospho [S1156]	CLSPN S1156	CAF_only	-2.95	0.87	-6.94	2.20
Q9HAW4 1xPhospho [S83]	CLSPN S83	CAF_only	-3.91	0.58	-7.06	1.62
P33993 1xPhospho [S156]	MCM7 S156	CAF_only	-4.06	0.71	-8.18	2.90
P05412 1xPhospho [S73]	JUN S73	CAF_only	-5.32	0.44	-8.81	1.33
P17535 1xPhospho [S100]	JUND S100	CAF_only	-5.32	0.44	-8.81	1.33

Appendix table 11- Proteome changes with 6MP in cancer or CAF CM

Accession	Gene	Significant change in	Log_2(Drug/DMSO) in Cancer CM	$-Log_{10}$(p value) in Cancer CM	Log_2(Drug/DMSO) in CAF CM	$-Log_{10}$(p value) in CAF CM
P0DP25		CAF_only	4.24	0.44	3.88	1.65
Q9H3M7	TXNIP	Cancer_only	6.16	1.40	3.88	0.64
Q9H299	SH3BGRL3	Cancer_only	3.14	1.49	3.13	0.60
Q15714	TSC22D1	CAF_only	4.67	0.98	3.05	1.66
P17676	CEBPB	Cancer_only	4.75	1.75	3.01	0.47
P10599	TXN	CAF_only	3.11	1.09	2.92	1.91
P09455	RBP1	Cancer_only	3.21	1.72	2.89	0.38
P34897	SHMT2	Cancer_only	1.36	1.62	2.85	0.47
O00592	PODXL	Cancer_only	2.37	1.74	2.82	0.89
P68402	PAFAH1B2	Cancer_and_CAF	3.18	2.86	2.70	1.54
P06733	ENO1	Cancer_only	2.79	1.36	2.66	0.55
P42330	AKR1C3	Cancer_and_CAF	3.02	1.69	2.66	2.22
P14550	AKR1A1	Cancer_and_CAF	3.57	1.65	2.64	1.57
P30626	SRI	CAF_only	2.89	0.78	2.63	1.34
Q16678	CYP1B1	Cancer_only	5.53	1.43	2.61	0.93
P36405	ARL3	CAF_only	2.20	1.02	2.56	1.77
P40925	MDH1	CAF_only	2.42	0.90	2.55	2.36
O43752	STX6	CAF_only	0.65	1.09	2.53	1.82
P46976	GYG1	Cancer_only	5.41	1.50	2.52	0.32

O75368	SH3BGRL	Cancer_only	3.54	2.22	2.48	0.54
Q8TCD5	NT5C	Cancer_only	3.44	2.22	2.47	0.67
Q8N8N7	PTGR2	Cancer_only	2.90	1.46	2.43	0.77
P55210	CASP7	CAF_only	2.22	0.73	2.40	1.79
P35869	AHR	Cancer_only	4.92	1.34	2.39	1.02
Q9NYV6	RRN3	Cancer_only	4.77	1.59	2.38	0.65
O95989	NUDT3	Cancer_only	3.70	1.53	2.38	0.80
P0CAP1	MYZAP	Cancer_only	4.38	2.30	2.37	1.11
P28065	PSMB9	Cancer_and_CAF	2.08	1.80	2.36	1.55
Q9NR45	NANS	Cancer_and_CAF	1.92	1.95	2.36	2.01
P09936	UCHL1	Cancer_only	3.50	1.81	2.36	0.73
Q96ME1	FBXL18	Cancer_and_CAF	1.90	1.45	2.33	2.30
Q86SJ2	AMIGO2	Cancer_and_CAF	4.17	1.31	2.33	1.42
O75828	CBR3	CAF_only	2.76	0.75	2.31	1.82
P34949	MPI	Cancer_and_CAF	3.14	1.46	2.31	1.83
O75608	LYPLA1	Cancer_only	1.50	2.47	2.31	1.07
Q15102	PAFAH1B3	Cancer_and_CAF	1.91	1.97	2.31	1.43
P12429	ANXA3	CAF_only	3.44	0.84	2.31	2.34
P07093	SERPINE2	CAF_only	2.18	0.76	2.29	1.77
P40121	CAPG	Cancer_only	2.95	1.54	2.29	0.88
Q96IZ0	PAWR	CAF_only	1.65	1.17	2.27	1.41
P61081	UBE2M	CAF_only	2.41	1.21	2.24	2.32
P15121	AKR1B1	Cancer_only	3.56	2.17	2.24	0.89

P30085	CMPK1	Cancer_only	3.56	1.80	2.23	0.44
P07741	APRT	Cancer_only	2.46	1.98	2.21	0.99
P20962	PTMS	CAF_only	3.33	1.09	2.19	1.55
Q9NVS9	PNPO	Cancer_only	2.52	1.53	2.16	0.53
Q969S3	ZNF622	CAF_only	1.65	0.90	2.14	2.07
Q9UHY7	ENOPH1	Cancer_only	2.73	1.83	2.11	0.56
P16035	TIMP2	Cancer_only	2.87	1.68	2.11	0.43
P00558	PGK1	Cancer_only	2.82	1.82	2.11	0.96
Q14019	COTL1	Cancer_only	4.03	1.32	2.09	0.36
Q9Y4H2	IRS2	CAF_only	2.41	1.15	2.08	3.19
Q9BX68	HINT2	Cancer_only	1.42	1.35	2.07	0.78
P42226	STAT6	CAF_only	1.23	0.46	2.05	2.23
P30740	SERPINB1	Cancer_only	3.35	1.68	2.05	1.06
P15927	RPA2	CAF_only	1.39	0.47	2.03	2.85
P20839	IMPDH1	Cancer_only	3.20	1.53	2.02	0.28
P30041	PRDX6	Cancer_only	2.61	1.79	2.01	0.47
Q14790	CASP8	CAF_only	1.98	0.83	2.00	2.10
P26583	HMGB2	CAF_only	3.15	1.19	2.00	1.83
P15374	UCHL3	Cancer_only	3.12	1.83	1.98	0.43
O75347	TBCA	Cancer_only	2.56	2.13	1.97	0.83
Q9NSK0	KLC4	Cancer_only	1.67	1.83	1.96	0.60
Q96FW1	OTUB1	Cancer_only	1.73	1.36	1.95	0.56
Q93052	LPP	Cancer_and_CAF	2.24	1.32	1.94	1.39

P36871	PGM1	Cancer_and_CAF	2.37	1.86	1.94	1.31
P00390	GSR	Cancer_only	1.64	2.86	1.93	1.04
Q8TDX7	NEK7	CAF_only	1.93	0.54	1.92	1.40
P21291	CSRP1	CAF_only	2.41	0.90	1.92	1.40
Q9BU02	THTPA	Cancer_only	2.05	2.62	1.90	0.37
Q96EM0	L3HYPDH	Cancer_only	2.68	1.44	1.88	0.93
Q9BUF5	TUBB6	CAF_only	1.65	0.78	1.87	1.55
P32320	CDA	Cancer_and_CAF	2.46	1.44	1.87	1.70
P52565	ARHGDIA	Cancer_only	3.17	2.69	1.86	0.29
Q15785	TOMM34	CAF_only	0.96	0.54	1.86	1.38
P55957	BID	CAF_only	1.71	0.93	1.86	1.69
Q9BTT0	ANP32E	Cancer_and_CAF	2.27	1.33	1.85	1.85
Q13057	COASY	CAF_only	2.25	1.16	1.85	1.83
Q7Z4H3	HDDC2	Cancer_only	2.71	1.97	1.84	0.58
O95834	EML2	Cancer_only	1.10	1.84	1.83	0.44
Q969J3	LOH12CR1	Cancer_only	1.53	1.60	1.83	0.63
O00154	ACOT7	Cancer_only	1.78	1.31	1.80	0.90
Q96C86	DCPS	Cancer_only	2.78	2.14	1.79	1.25
P16219	ACADS	Cancer_and_CAF	2.28	1.44	1.78	1.31
Q53HC9	TSSC1	CAF_only	1.71	0.58	1.78	2.11
P20810	CAST	CAF_only	2.41	0.89	1.77	1.31
O60936	NOL3	Cancer_only	3.54	1.43	1.75	0.60
Q7Z7M0	MEGF8	Cancer_only	-1.60	1.64	1.75	0.94

P16949	STMN1	Cancer_only	3.42	1.88	1.75	0.49
Q9UM54	MYO6	CAF_only	2.00	0.78	1.75	1.69
P18669	PGAM1	Cancer_only	2.41	1.49	1.75	0.60
Q07960	ARHGAP1	Cancer_only	3.05	3.06	1.74	0.38
P07203	GPX1	Cancer_only	1.59	1.37	1.73	0.91
Q9GZZ9	UBA5	Cancer_only	2.09	1.84	1.71	0.28
Q53FA7	TP53I3	CAF_only	2.67	0.72	1.70	1.97
P00813	ADA	CAF_only	1.61	0.58	1.69	2.39
P04792	HSPB1	Cancer_only	2.60	2.44	1.68	1.17
Q3KQV9	UAP1L1	Cancer_only	2.14	2.34	1.68	0.63
Q9NWV4	C1orf123	Cancer_only	3.56	1.39	1.67	0.44
P09211	GSTP1	Cancer_only	3.06	1.36	1.66	0.48
O00170	AIP	Cancer_only	3.07	2.12	1.65	1.02
P22314	UBA1	Cancer_only	2.38	1.33	1.64	0.50
P13796	LCP1	CAF_only	1.65	0.97	1.63	2.20
Q6ZNW5	GDPGP1	Cancer_only	2.03	1.34	1.62	0.48
P28289	TMOD1	Cancer_only	1.43	1.32	1.62	0.85
P00491	PNP	Cancer_only	2.53	1.43	1.61	0.49
P31749	AKT1	CAF_only	2.29	0.83	1.61	1.75
O00625	PIR	Cancer_only	3.07	1.77	1.61	0.47
O95747	OXSR1	Cancer_and_CAF	2.00	1.38	1.60	1.95
P53041	PPP5C	Cancer_only	3.12	1.47	1.60	0.42
Q8TDQ7	GNPDA2	CAF_only	2.67	0.88	1.59	1.31

P12955	PEPD	Cancer_only	1.51	1.99	1.59	0.69
Q9NZU5	LMCD1	CAF_only	1.68	0.78	1.58	1.45
Q8IZ83	ALDH16A1	Cancer_and_CAF	1.80	1.42	1.57	1.63
Q7Z7F0	KIAA0907	CAF_only	0.56	0.21	1.57	1.83
Q9H098	FAM107B	Cancer_only	4.63	2.42	1.57	0.23
P36915	GNL1	CAF_only	1.39	1.00	1.56	1.32
Q9UEE9	CFDP1	Cancer_and_CAF	1.90	1.33	1.56	1.67
O43776	NARS	Cancer_only	1.87	1.34	1.56	0.73
P14649	MYL6B	Cancer_only	1.94	1.39	1.56	0.41
Q9H974	QTRTD1	CAF_only	1.43	0.57	1.55	1.68
Q92783	STAM	CAF_only	0.92	0.54	1.55	1.32
Q14116	IL18	Cancer_and_CAF	2.11	1.39	1.55	1.34
P11586	MTHFD1	Cancer_only	1.95	1.66	1.55	0.74
P0CG30	GSTT2B	Cancer_only	3.42	1.36	1.54	0.31
P30086	PEBP1	Cancer_only	4.10	2.01	1.53	0.21
Q9BST9	RTKN	Cancer_and_CAF	1.50	2.14	1.53	1.36
Q9UEW8	STK39	CAF_only	1.43	1.01	1.53	2.79
P16152	CBR1	Cancer_only	2.57	2.13	1.52	0.41
P17174	GOT1	Cancer_only	2.78	1.96	1.52	0.52
Q9H4A4	RNPEP	Cancer_only	3.40	1.68	1.51	0.26
Q13642	FHL1	CAF_only	2.32	0.90	1.51	1.90
Q8N4T8	CBR4	Cancer_only	3.21	2.29	1.51	0.78
Q96K17	BTF3L4	Cancer_only	2.80	1.34	1.50	0.58

O00399	DCTN6	Cancer_only	1.84	1.81	1.50	0.83
P61088	UBE2N	CAF_only	2.10	0.59	1.50	2.03
P26640	VARS	CAF_only	1.27	1.06	1.50	1.33
O94760	DDAH1	Cancer_only	2.84	1.31	1.49	0.30
Q5TFE4	NT5DC1	CAF_only	2.15	1.10	1.49	3.25
O00244	ATOX1	Cancer_only	4.89	2.32	1.48	0.17
Q03154	ACY1	CAF_only	2.67	0.69	1.48	1.53
Q9H0R4	HDHD2	Cancer_only	2.38	1.46	1.48	0.65
P54764	EPHA4	CAF_only	1.50	0.59	1.47	3.18
P10155	TROVE2	CAF_only	1.01	0.86	1.46	1.41
Q9NQR4	NIT2	CAF_only	2.50	0.91	1.46	1.46
Q99829	CPNE1	Cancer_only	2.80	1.30	1.46	0.87
P04075	ALDOA	Cancer_only	2.44	1.98	1.45	0.35
P22061	PCMT1	Cancer_only	3.02	2.25	1.45	0.63
P30043	BLVRB	Cancer_only	1.99	1.38	1.44	1.21
Q9H446	RWDD1	Cancer_only	1.88	1.56	1.44	0.49
Q9Y287	ITM2B	CAF_only	2.88	1.03	1.43	1.72
P36959	GMPR	Cancer_only	2.61	1.56	1.43	0.29
Q4V328	GRIPAP1	CAF_only	1.80	1.18	1.43	1.45
P18206	VCL	Cancer_only	1.79	3.68	1.43	1.28
P35237	SERPINB6	Cancer_only	2.67	1.56	1.42	0.42
Q86WR7	PROSER2	Cancer_only	1.81	1.75	1.41	0.78
P53365	ARFIP2	Cancer_only	2.66	2.74	1.41	0.35

Q9H5N1	RABEP2	CAF_only	1.44	0.81	1.41	1.46
Q9NP97	DYNLRB1	Cancer_only	1.61	1.52	1.40	0.64
P26639	TARS	Cancer_only	2.03	1.53	1.40	1.29
Q9UJ72	ANXA10	Cancer_only	2.66	1.35	1.39	0.37
Q14203	DCTN1	Cancer_and_CAF	1.62	1.38	1.39	1.78
P55060	CSE1L	Cancer_only	1.19	1.71	1.39	0.65
Q96CP2	FLYWCH2	Cancer_only	2.61	1.31	1.39	0.44
P50453	SERPINB9	Cancer_and_CAF	2.21	2.06	1.38	1.37
O14933	UBE2L6	Cancer_only	2.63	1.55	1.38	0.24
Q9Y5Z4	HEBP2	Cancer_only	3.35	2.99	1.38	0.36
P67936	TPM4	Cancer_only	2.52	1.70	1.38	0.37
Q9UBS8	RNF14	CAF_only	1.20	0.51	1.37	2.78
Q9UBT2	UBA2	CAF_only	0.97	0.76	1.36	1.36
O95260	ATE1	Cancer_only	2.06	2.49	1.36	0.94
P55786	NPEPPS	CAF_only	1.19	0.55	1.36	1.41
Q96C90	PPP1R14B	Cancer_only	3.61	1.34	1.35	0.14
Q9Y316	MEMO1	CAF_only	1.38	0.86	1.35	2.18
P06737	PYGL	CAF_only	1.53	1.12	1.34	1.40
Q01415	GALK2	CAF_only	1.84	1.03	1.34	1.44
Q9UBE0	SAE1	Cancer_only	1.45	1.34	1.34	0.63
P00338	LDHA	Cancer_only	2.60	1.30	1.34	0.21
O95671	ASMTL	Cancer_and_CAF	2.45	1.39	1.34	1.50
P49588	AARS	Cancer_only	2.90	2.27	1.33	0.47

Q8N9N7	LRRC57	Cancer_only	2.36	1.33	1.33	0.35
Q9HA64	FN3KRP	CAF_only	2.27	0.54	1.33	1.57
Q96P70	IPO9	CAF_only	1.53	0.79	1.33	1.45
Q15046	KARS	CAF_only	0.91	1.71	1.33	1.78
P49914	MTHFS	Cancer_only	1.03	1.42	1.33	0.59
Q16222	UAP1	Cancer_only	1.56	2.50	1.32	0.30
Q9UDY4	DNAJB4	Cancer_only	2.30	1.96	1.32	0.44
Q13144	EIF2B5	CAF_only	1.41	1.03	1.32	1.81
Q96TA1	FAM129B	Cancer_only	1.07	1.47	1.32	0.82
P07737	PFN1	Cancer_only	2.53	1.45	1.32	0.30
Q06323	PSME1	Cancer_only	2.84	1.35	1.30	0.37
Q9UGI8	TES	Cancer_only	3.77	2.38	1.30	0.33
Q96G03	PGM2	Cancer_only	2.63	1.80	1.30	0.42
Q6PCE3	PGM2L1	Cancer_only	2.53	1.54	1.29	0.91
Q01201	RELB	CAF_only	1.07	1.25	1.29	2.00
Q99584	S100A13	CAF_only	1.29	1.06	1.29	1.48
Q9HBK9	AS3MT	Cancer_only	1.21	2.33	1.29	0.56
Q06546	GABPA	CAF_only	0.91	1.12	1.29	2.29
O60218	AKR1B10	Cancer_only	3.08	1.33	1.27	0.90
Q9NR33	POLE4	CAF_only	0.62	0.57	1.27	1.54
Q9BRF8	CPPED1	Cancer_only	3.75	1.40	1.27	0.13
Q16881	TXNRD1	Cancer_only	2.77	1.74	1.27	0.21
Q9H788	SH2D4A	Cancer_only	1.52	1.41	1.26	0.85

O60232	SSSCA1	Cancer_only	2.36	2.20	1.26	0.24
Q01968	OCRL	CAF_only	0.59	0.75	1.25	1.77
Q01658	DR1	Cancer_only	1.49	1.39	1.25	0.46
P35244	RPA3	CAF_only	1.28	0.84	1.24	1.82
Q04446	GBE1	Cancer_only	2.52	1.34	1.24	0.50
Q9BRS8	LARP6	Cancer_only	1.59	2.00	1.24	0.74
P37840	SNCA	Cancer_and_CAF	2.42	1.59	1.24	1.67
P52209	PGD	CAF_only	1.97	0.99	1.23	1.51
P49459	UBE2A	CAF_only	0.29	0.22	1.23	1.32
Q8N6M0	OTUD6B	Cancer_only	1.35	1.77	1.23	0.36
A6NDU8	C5orf51	CAF_only	1.76	0.76	1.23	2.23
Q32P41	TRMT5	CAF_only	1.64	1.08	1.22	1.65
Q16851	UGP2	Cancer_only	2.76	1.51	1.22	0.63
P31150	GDI1	Cancer_only	2.63	1.63	1.21	0.31
Q8WUH2	TGFBRAP1	Cancer_only	1.25	1.35	1.21	0.35
Q15126	PMVK	Cancer_only	1.86	1.66	1.21	0.55
Q99836	MYD88	CAF_only	1.56	0.59	1.20	1.89
P13798	APEH	Cancer_only	2.01	2.12	1.20	0.43
Q96H79	ZC3HAV1L	CAF_only	1.20	0.68	1.20	1.57
Q9Y285	FARSA	CAF_only	1.38	0.70	1.20	1.37
P16930	FAH	Cancer_only	3.05	2.49	1.20	0.15
P27635	RPL10	CAF_only	-0.25	1.57	1.20	1.80
Q9HC35	EML4	Cancer_only	1.32	1.58	1.20	1.11

P13797	PLS3	Cancer_only	2.65	2.13	1.20	0.26
Q9UL46	PSME2	Cancer_only	2.30	1.70	1.19	0.46
Q9NRN7	AASDHPPT	Cancer_only	1.84	1.81	1.19	0.67
Q8N2Y8	RUSC2	CAF_only	0.59	0.46	1.19	1.34
Q6Q4G3	AQPEP	Cancer_only	2.59	1.54	1.19	1.21
Q9BW30	TPPP3	Cancer_only	3.03	1.41	1.18	0.40
Q96HC4	PDLIM5	Cancer_only	2.03	1.74	1.18	0.37
Q9Y6I3	EPN1	CAF_only	-0.68	0.28	1.18	1.39
P53367	ARFIP1	CAF_only	1.78	1.12	1.18	1.64
Q15691	MAPRE1	Cancer_only	2.54	2.38	1.18	0.19
P54578	USP14	Cancer_only	2.06	1.38	1.17	0.28
A6NDG6	PGP	Cancer_only	3.28	1.36	1.17	0.24
Q9C0B1	FTO	CAF_only	1.88	1.20	1.16	1.54
Q9HB21	PLEKHA1	CAF_only	1.35	0.95	1.16	1.45
P49903	SEPHS1	Cancer_and_CAF	1.64	1.55	1.16	1.35
O75569	PRKRA	Cancer_only	2.12	1.39	1.16	0.55
Q8IY33	MICALL2	CAF_only	1.06	0.48	1.16	1.37
P53618	COPB1	Cancer_only	1.54	1.34	1.15	0.38
P14618	PKM	Cancer_only	2.53	1.65	1.15	0.22
Q9BUK6	MSTO1	Cancer_only	1.89	1.89	1.15	0.52
Q14315	FLNC	CAF_only	1.39	1.02	1.15	1.59
P07814	EPRS	Cancer_and_CAF	1.22	1.46	1.14	1.66
P57764	GSDMD	Cancer_only	2.45	2.65	1.14	0.57

Q14558	PRPSAP1	Cancer_only	1.95	2.11	1.13	0.26
Q9Y5X2	SNX8	Cancer_and_CAF	1.41	1.54	1.13	1.38
P00492	HPRT1	Cancer_only	3.02	1.34	1.13	0.22
Q05639	EEF1A2	Cancer_only	1.58	1.57	1.13	0.43
Q86X76	NIT1	CAF_only	1.95	0.81	1.13	1.38
Q8IUI8	CRLF3	Cancer_only	2.10	1.73	1.12	0.43
P05161	ISG15	Cancer_only	1.91	1.45	1.11	0.84
P15531	NME1	Cancer_only	2.09	2.84	1.11	0.21
Q15276	RABEP1	CAF_only	1.51	1.22	1.11	1.79
Q96C23	GALM	Cancer_only	2.88	1.86	1.11	0.26
Q8WW12	PCNP	Cancer_and_CAF	1.61	1.52	1.10	1.73
P51812	RPS6KA3	Cancer_and_CAF	1.93	1.39	1.10	2.05
P13051	UNG	CAF_only	1.79	0.71	1.10	1.63
Q14232	EIF2B1	Cancer_only	2.29	1.60	1.09	0.60
P36639	NUDT1	Cancer_only	1.37	1.55	1.09	1.04
P55039	DRG2	Cancer_only	2.15	1.72	1.09	0.29
Q99627	COPS8	Cancer_only	1.03	1.64	1.09	0.86
Q9Y315	DERA	Cancer_only	2.08	1.99	1.09	0.48
P49354	FNTA	Cancer_only	2.13	1.42	1.08	0.33
Q8WVB6	CHTF18	CAF_only	0.18	0.59	1.08	1.79
Q9UBG0	MRC2	CAF_only	1.23	1.09	1.08	1.79
O95376	ARIH2	Cancer_only	1.27	1.93	1.08	0.60
O14964	HGS	CAF_only	0.00	0.00	1.07	1.54

Q9NZZ3	CHMP5	Cancer_only	1.74	1.57	1.07	0.47
Q7Z406	MYH14	Cancer_only	1.14	1.73	1.06	0.84
O75312	ZPR1	CAF_only	1.59	0.67	1.06	1.66
O75531	BANF1	CAF_only	0.36	0.47	1.05	1.63
Q9Y4R8	TELO2	CAF_only	0.52	0.30	1.05	1.45
Q92905	COPS5	Cancer_only	1.53	1.34	1.05	0.41
Q8IYS1	PM20D2	Cancer_only	1.71	2.24	1.05	0.51
Q8TE77	SSH3	CAF_only	1.89	1.00	1.05	1.39
Q13126	MTAP	Cancer_only	2.64	1.43	1.05	0.16
Q16658	FSCN1	Cancer_only	2.37	1.55	1.04	0.27
P30153	PPP2R1A	Cancer_only	1.70	1.85	1.04	0.32
Q9H4A5	GOLPH3L	Cancer_only	1.07	2.23	1.04	0.18
P46109	CRKL	Cancer_only	2.33	1.45	1.03	0.23
Q9NVZ3	NECAP2	CAF_only	1.65	0.61	1.03	1.76
P21399	ACO1	Cancer_only	2.82	1.43	1.02	0.19
Q9UQ80	PA2G4	Cancer_only	1.43	1.62	1.02	0.63
Q9NZL4	HSPBP1	Cancer_only	1.16	1.63	1.02	0.32
Q5XPI4	RNF123	CAF_only	1.75	0.94	1.02	1.59
Q3KRA6	C2orf76	Cancer_only	1.45	1.42	1.02	0.50
Q96RS6	NUDCD1	Cancer_only	1.61	1.99	1.02	0.53
Q7Z3J2	C16orf62	CAF_only	0.82	2.30	1.01	1.99
Q14919	DRAP1	CAF_only	0.98	0.48	1.01	1.32
P40855	PEX19	Cancer_and_CAF	1.36	1.49	1.00	1.49

P43487	RANBP1	Cancer_only	3.94	1.55	1.00	0.12
Q8TBC4	UBA3	Cancer_only	1.77	1.37	0.99	0.25
Q92734	TFG	Cancer_only	2.27	1.58	0.99	0.29
Q5JSH3	WDR44	Cancer_only	1.85	1.43	0.99	0.39
Q53HV7	SMUG1	Cancer_only	1.42	1.44	0.99	0.35
Q9H074	PAIP1	Cancer_only	1.29	1.83	0.98	0.80
Q9UBW8	COPS7A	Cancer_only	1.19	1.32	0.98	0.76
P33316	DUT	Cancer_only	1.53	1.62	0.97	0.48
Q08209	PPP3CA	Cancer_only	1.75	1.88	0.97	0.52
Q9UBQ7	GRHPR	Cancer_only	1.48	1.89	0.96	0.97
P62140	PPP1CB	Cancer_only	1.27	1.39	0.96	0.54
P27816	MAP4	Cancer_only	1.90	1.41	0.95	0.26
Q9H3S7	PTPN23	Cancer_only	1.06	2.95	0.95	0.49
Q96QK1	VPS35	Cancer_only	1.37	2.10	0.94	1.35
Q9Y6W5	WASF2	Cancer_only	2.21	1.96	0.93	0.14
Q96B97	SH3KBP1	Cancer_only	2.54	1.60	0.93	0.21
Q9Y450	HBS1L	Cancer_only	1.69	3.05	0.93	0.29
Q3LXA3	DAK	Cancer_only	2.03	1.35	0.92	0.74
Q06124	PTPN11	Cancer_only	2.62	2.54	0.92	0.18
Q9H9C1	VIPAS39	Cancer_only	1.73	1.36	0.92	0.55
P56192	MARS	Cancer_only	1.26	1.68	0.92	0.60
Q99598	TSNAX	Cancer_only	1.80	1.59	0.91	0.43
O94979	SEC31A	Cancer_only	2.35	1.78	0.91	0.21

Q9UN37	VPS4A	Cancer_only	2.66	1.94	0.91	0.16
Q96FN9	DTD2	Cancer_only	1.55	1.31	0.91	0.64
O76094	SRP72	Cancer_only	1.07	1.32	0.90	0.55
O00506	STK25	Cancer_only	1.44	2.13	0.90	0.34
Q9Y5K5	UCHL5	Cancer_only	1.17	1.95	0.89	0.46
P52306	RAP1GDS1	Cancer_only	1.61	1.66	0.89	0.22
P43490	NAMPT	Cancer_only	3.07	2.35	0.89	0.13
P23381	WARS	Cancer_only	2.37	1.95	0.88	0.27
Q16555	DPYSL2	Cancer_only	2.30	2.42	0.87	0.27
Q8N573	OXR1	Cancer_only	1.20	2.02	0.87	0.26
Q12904	AIMP1	Cancer_only	1.39	2.10	0.86	0.79
Q99733	NAP1L4	Cancer_only	1.72	1.68	0.86	0.40
O15075	DCLK1	Cancer_only	1.03	1.64	0.85	0.99
Q9BYN0	SRXN1	Cancer_only	2.58	2.09	0.84	0.13
O95340	PAPSS2	Cancer_only	1.58	1.88	0.84	0.24
P48739	PITPNB	Cancer_only	2.34	1.39	0.83	0.13
P49585	PCYT1A	Cancer_only	1.21	1.71	0.83	0.31
O15116	LSM1	Cancer_only	2.46	2.11	0.82	0.41
Q9BV44	THUMPD3	Cancer_only	1.94	1.92	0.82	0.37
Q8NHP8	PLBD2	Cancer_only	-1.77	2.25	0.82	0.15
P40306	PSMB10	Cancer_only	1.62	1.51	0.82	0.53
Q8WZA0	LZIC	Cancer_only	2.55	1.49	0.82	0.22
Q66K74	MAP1S	Cancer_only	2.23	1.35	0.81	1.73

Q8WUP2	FBLIM1	Cancer_only	1.42	1.75	0.81	0.56
O00429	DNM1L	Cancer_only	1.87	2.12	0.81	0.23
P22694	PRKACB	Cancer_only	1.37	1.62	0.80	0.36
Q16204	CCDC6	Cancer_only	2.50	1.70	0.79	0.17
P19971	TYMP	Cancer_only	2.44	1.30	0.79	0.25
Q8TC07	TBC1D15	Cancer_only	1.61	1.60	0.78	0.29
Q9Y6K9	IKBKG	Cancer_only	1.07	1.62	0.78	0.87
Q9Y3D0	FAM96B	Cancer_only	1.17	1.47	0.78	0.21
P62258	YWHAE	Cancer_only	2.40	1.38	0.78	0.17
Q8N668	COMMD1	Cancer_only	1.20	1.38	0.78	0.22
Q99933	BAG1	Cancer_only	1.57	1.54	0.77	0.26
Q9NRK6	ABCB10	Cancer_only	1.25	1.74	0.77	0.57
P17987	TCP1	Cancer_only	1.20	1.56	0.77	0.30
Q96HD1	CRELD1	Cancer_only	1.81	1.43	0.77	0.48
Q5T6V5	C9orf64	Cancer_only	1.91	1.68	0.76	0.41
Q8NDH3	NPEPL1	Cancer_only	1.97	2.35	0.76	0.22
Q16719	KYNU	Cancer_only	2.61	1.49	0.75	0.14
O95551	TDP2	Cancer_only	1.69	2.47	0.75	1.57
P78357	CNTNAP1	Cancer_only	1.54	1.73	0.75	0.44
P45984	MAPK9	Cancer_only	1.78	1.39	0.75	0.15
Q9NWV8	BABAM1	Cancer_only	1.16	2.32	0.75	0.48
P51617	IRAK1	Cancer_only	1.12	1.40	0.75	0.47
O43592	XPOT	Cancer_only	1.88	2.50	0.74	0.22

Q8WUR7	C15orf40	Cancer_only	3.19	1.35	0.74	0.58
P07900	HSP90AA1	Cancer_only	2.25	1.37	0.74	0.11
O00203	AP3B1	Cancer_only	1.15	1.47	0.74	0.39
A0AVT1	UBA6	Cancer_only	1.39	1.53	0.74	0.35
Q9BQE3	TUBA1C	Cancer_only	1.96	1.40	0.73	0.13
Q16401	PSMD5	Cancer_only	1.89	2.09	0.73	0.18
Q8NG68	TTL	Cancer_only	1.48	1.44	0.72	0.16
O76003	GLRX3	Cancer_only	2.09	1.66	0.72	0.09
Q96JH7	VCPIP1	Cancer_only	1.58	1.44	0.72	0.41
A1X283	SH3PXD2B	Cancer_only	1.14	2.25	0.72	0.39
P78537	BLOC1S1	Cancer_only	1.36	1.32	0.72	2.54
P27694	RPA1	Cancer_only	1.34	1.53	0.71	0.35
Q9H9Q4	NHEJ1	Cancer_only	1.81	1.56	0.71	0.28
P61020	RAB5B	Cancer_only	1.78	2.13	0.70	0.69
Q13177	PAK2	Cancer_only	1.94	2.43	0.70	0.14
Q8N6T3	ARFGAP1	Cancer_only	1.26	1.78	0.70	0.09
Q9BVA0	KATNB1	Cancer_only	1.10	1.37	0.68	0.39
Q9Y5X3	SNX5	Cancer_only	2.03	2.22	0.68	0.16
Q99961	SH3GL1	Cancer_only	1.45	1.84	0.67	0.38
Q9BWH6	RPAP1	Cancer_only	1.09	1.57	0.67	1.40
Q9UBS0	RPS6KB2	Cancer_only	2.76	1.32	0.67	0.15
Q02790	FKBP4	Cancer_only	1.71	1.30	0.66	0.24
Q9GZN8	C20orf27	Cancer_only	2.85	1.53	0.65	0.26

Q8IYB7	DIS3L2	Cancer_only	1.37	1.84	0.65	0.29
Q969H8	MYDGF	Cancer_only	1.77	1.40	0.64	1.18
Q9UHY1	NRBP1	Cancer_only	1.08	3.25	0.62	0.36
Q9UIC8	LCMT1	Cancer_only	2.13	1.98	0.62	0.15
Q9NUU7	DDX19A	Cancer_only	2.85	1.36	0.59	0.06
Q9NTJ4	MAN2C1	Cancer_only	2.23	1.75	0.59	0.99
Q9UPT5	EXOC7	Cancer_only	1.01	2.07	0.58	0.20
Q2M2I8	AAK1	Cancer_only	1.57	1.54	0.58	0.14
Q32MZ4	LRRFIP1	Cancer_only	1.67	2.07	0.57	0.18
P49247	RPIA	Cancer_only	1.83	1.81	0.57	0.21
Q9H6Z4	RANBP3	Cancer_only	1.09	1.36	0.57	0.17
Q49AR2	C5orf22	Cancer_only	1.14	1.36	0.57	0.32
Q96KG9	SCYL1	Cancer_only	1.24	1.89	0.57	0.17
Q9H2G2	SLK	Cancer_only	2.19	2.54	0.56	0.10
A6NIH7	UNC119B	Cancer_only	1.81	1.55	0.54	0.32
O14787	TNPO2	Cancer_only	1.18	1.81	0.53	0.14
Q9P2B4	CTTNBP2NL	Cancer_only	1.84	2.05	0.53	0.23
Q9UH65	SWAP70	Cancer_only	1.56	2.36	0.53	0.20
Q8N392	ARHGAP18	Cancer_only	2.25	1.91	0.53	0.17
P25789	PSMA4	Cancer_only	2.38	1.72	0.53	0.10
Q8NFI3	ENGASE	Cancer_only	2.28	1.53	0.52	0.11
Q9NVH6	TMLHE	Cancer_only	1.12	1.47	0.51	0.28
O14744	PRMT5	Cancer_only	1.47	1.37	0.50	0.11

P48637	GSS	Cancer_only	1.61	1.87	0.50	0.19
Q14258	TRIM25	Cancer_only	1.90	1.53	0.50	0.13
Q9UNS2	COPS3	Cancer_only	1.79	1.60	0.49	0.16
P11441	UBL4A	Cancer_only	1.90	1.40	0.49	0.17
P06744	GPI	Cancer_only	2.68	2.41	0.49	0.12
Q8IXQ6	PARP9	Cancer_only	1.05	1.37	0.48	0.27
Q99832	CCT7	Cancer_only	1.10	1.42	0.48	0.10
Q8TD19	NEK9	Cancer_only	1.80	1.67	0.47	0.21
O00712	NFIB	Cancer_only	1.82	1.47	0.46	0.59
O43414	ERI3	Cancer_only	1.29	1.32	0.46	0.32
O75874	IDH1	Cancer_only	2.66	1.55	0.46	0.09
Q92889	ERCC4	Cancer_only	1.23	1.57	0.46	0.45
Q9Y4G8	RAPGEF2	Cancer_only	1.27	1.47	0.42	0.16
P54687	BCAT1	Cancer_only	2.19	1.59	0.42	0.11
Q9H444	CHMP4B	Cancer_only	2.78	1.77	0.42	0.20
Q13630	TSTA3	Cancer_only	1.91	1.38	0.41	0.12
P49770	EIF2B2	Cancer_only	2.29	2.36	0.41	0.10
Q6UWE0	LRSAM1	Cancer_only	1.47	1.81	0.41	0.22
Q96GX9	APIP	Cancer_only	1.35	1.34	0.40	1.03
P49721	PSMB2	Cancer_only	1.82	1.83	0.40	0.13
Q92558	WASF1	Cancer_only	1.62	2.32	0.40	0.08
Q6VY07	PACS1	Cancer_only	2.01	1.36	0.40	0.16
Q5T0F9	CC2D1B	Cancer_only	1.50	1.58	0.39	0.11

Q8IYI6	EXOC8	Cancer_only	1.21	1.59	0.37	0.10
Q9Y223	GNE	Cancer_only	2.60	1.76	0.36	0.41
Q9UBI1	COMMD3	Cancer_only	1.76	1.34	0.36	0.09
Q9Y263	PLAA	Cancer_only	1.14	1.54	0.36	0.36
Q9GZT9	EGLN1	Cancer_only	2.01	2.91	0.34	0.29
Q96EV2	RBM33	Cancer_only	1.21	1.42	0.34	0.62
Q9NZ32	ACTR10	Cancer_only	1.94	1.34	0.33	0.20
Q9GZT6	CCDC90B	Cancer_only	1.17	1.96	0.32	0.22
P52294	KPNA1	Cancer_only	1.11	4.60	0.32	0.07
Q32P44	EML3	Cancer_only	1.85	1.82	0.32	0.13
Q96SL4	GPX7	Cancer_only	2.26	2.17	0.31	0.15
Q96F86	EDC3	Cancer_only	1.12	1.50	0.31	0.07
Q86TP1	PRUNE	Cancer_only	1.66	1.82	0.30	0.09
Q56VL3	OCIAD2	Cancer_only	-1.50	1.34	0.29	0.06
P61225	RAP2B	Cancer_only	-1.06	2.21	0.29	0.11
Q7L775	EPM2AIP1	Cancer_only	2.22	1.89	0.29	0.04
Q8TDZ2	MICAL1	Cancer_only	1.36	1.85	0.29	0.19
Q8TE76	MORC4	Cancer_only	-1.14	1.60	0.29	0.16
Q7L5D6	GET4	Cancer_only	1.59	1.68	0.27	0.06
P22830	FECH	Cancer_only	1.01	1.90	0.27	0.22
Q13043	STK4	Cancer_only	1.29	1.60	0.27	0.70
P16333	NCK1	Cancer_only	1.96	1.60	0.26	0.10
Q8TF05	PPP4R1	Cancer_only	1.48	1.47	0.25	0.09

Q9Y606	PUS1	Cancer_only	-1.06	1.45	0.22	0.04
P62070	RRAS2	Cancer_only	-1.66	1.39	0.20	0.06
Q9NQX3	GPHN	Cancer_only	1.53	1.50	0.20	0.11
Q96EQ0	SGTB	Cancer_only	1.94	1.87	0.19	0.05
Q9Y478	PRKAB1	Cancer_only	1.57	1.62	0.19	0.21
Q8WUX9	CHMP7	Cancer_only	2.40	1.34	0.18	0.03
P61803	DAD1	Cancer_only	-1.81	1.75	0.17	0.03
P18615	NELFE	Cancer_only	1.04	1.44	0.16	0.11
Q9Y2I1	NISCH	Cancer_only	1.07	1.34	0.16	0.12
O43818	RRP9	Cancer_only	-1.56	1.43	0.16	0.04
P15170	GSPT1	Cancer_only	1.79	1.78	0.15	0.02
P19338	NCL	Cancer_only	-1.27	2.76	0.13	0.03
Q9BYV8	CEP41	Cancer_only	1.68	1.33	0.13	0.03
Q8IXI1	RHOT2	Cancer_only	-1.55	1.39	0.11	0.06
Q99519	NEU1	Cancer_only	1.33	1.49	0.11	0.03
Q6ZRI6	C15orf39	Cancer_only	1.96	1.69	0.10	0.03
Q8N5F7	NKAP	Cancer_only	-1.11	1.92	0.08	0.04
Q96A57	TMEM230	Cancer_only	-1.32	2.23	0.07	0.01
Q14149	MORC3	Cancer_only	-1.41	2.19	0.07	0.05
Q9H330	TMEM245	Cancer_only	-1.91	1.30	0.06	0.01
Q5VZK9	LRRC16A	Cancer_only	1.41	1.98	0.05	0.06
Q9ULE0	WWC3	Cancer_only	1.10	1.38	0.02	0.01
P29692	EEF1D	Cancer_only	1.05	1.55	0.01	0.00

Q96PP9	GBP4	Cancer_only	1.76	1.67	0.01	0.00
Q53F19	C17orf85	Cancer_only	-1.52	1.66	0.00	0.00
Q9UNW1	MINPP1	Cancer_only	2.19	1.58	-0.01	0.00
Q13505	MTX1	Cancer_only	-1.22	1.87	-0.02	0.01
Q9ULV0	MYO5B	Cancer_only	2.19	1.64	-0.02	0.01
Q9ULC3	RAB23	Cancer_only	-1.38	1.57	-0.02	0.72
P53701	HCCS	Cancer_only	-1.07	1.47	-0.03	0.01
Q00839	HNRNPU	Cancer_only	-1.23	1.45	-0.03	0.01
Q00765	REEP5	Cancer_only	-1.26	2.20	-0.06	0.01
Q86VX2	COMMD7	Cancer_only	1.53	1.47	-0.06	0.01
Q6NW34	C3orf17	Cancer_only	-1.28	2.13	-0.06	0.20
Q9UEY8	ADD3	Cancer_only	1.05	2.11	-0.07	0.02
Q8NAV1	PRPF38A	Cancer_only	-1.16	2.04	-0.08	0.05
Q15545	TAF7	Cancer_only	1.71	1.55	-0.08	0.19
Q96GQ5	C16orf58	Cancer_only	-1.98	1.35	-0.08	0.01
Q99973	TEP1	Cancer_only	-1.56	1.89	-0.09	0.03
Q9NVM9	ASUN	Cancer_only	-1.84	1.36	-0.11	0.04
Q05932	FPGS	Cancer_only	-2.34	1.63	-0.13	0.41
Q9NZ09	UBAP1	Cancer_only	1.54	1.32	-0.13	0.05
Q14137	BOP1	Cancer_only	-1.33	1.40	-0.13	0.13
O76080	ZFAND5	Cancer_only	-2.38	1.41	-0.14	0.09
P10321	HLA-C	Cancer_only	-1.99	2.41	-0.14	0.02
Q9NZQ3	NCKIPSD	Cancer_only	1.84	1.71	-0.14	0.03

P17275	JUNB	Cancer_only	1.48	1.36	-0.14	0.05
Q13724	MOGS	Cancer_only	-1.60	1.68	-0.15	0.03
Q15149	PLEC	Cancer_only	-1.74	1.55	-0.15	0.04
P09104	ENO2	Cancer_only	3.18	1.92	-0.18	0.03
P78527	PRKDC	Cancer_only	-1.30	2.23	-0.19	0.04
O14874	BCKDK	Cancer_only	1.62	1.55	-0.19	0.04
Q9BYC8	MRPL32	Cancer_only	-1.16	2.24	-0.19	0.28
Q9NVC6	MED17	Cancer_only	-1.31	1.44	-0.21	0.05
Q9GZN1	ACTR6	Cancer_only	-1.25	1.56	-0.22	0.10
Q3ZCQ8	TIMM50	Cancer_only	-1.26	1.48	-0.24	0.05
Q9Y426	C2CD2	Cancer_only	-1.85	1.32	-0.25	0.20
O75477	ERLIN1	Cancer_only	-2.08	2.00	-0.26	0.07
Q96LB3	IFT74	Cancer_only	1.84	1.86	-0.26	0.04
O00264	PGRMC1	Cancer_only	-1.65	1.41	-0.29	0.04
Q9Y520	PRRC2C	Cancer_only	-1.33	2.15	-0.29	0.33
Q12931	TRAP1	Cancer_only	-1.58	1.73	-0.29	0.09
Q9UPN3	MACF1	Cancer_only	-1.14	1.34	-0.29	0.35
O75534	CSDE1	Cancer_only	-1.36	3.87	-0.30	1.14
O43920	NDUFS5	Cancer_only	-1.75	1.70	-0.30	0.03
Q9UPN9	TRIM33	Cancer_only	-1.61	1.34	-0.31	0.17
Q9Y221	NIP7	Cancer_only	-1.78	1.61	-0.31	0.08
P05556	ITGB1	Cancer_only	-1.21	1.52	-0.33	0.16
Q6PD62	CTR9	Cancer_only	-1.40	1.44	-0.35	0.29

Q9P015	MRPL15	Cancer_only	-2.02	1.45	-0.35	0.12
O60488	ACSL4	Cancer_only	-1.55	2.38	-0.36	0.09
Q16799	RTN1	Cancer_only	-1.27	1.49	-0.37	0.77
O75694	NUP155	Cancer_only	-1.22	1.52	-0.37	0.12
Q8NCH0	CHST14	Cancer_only	-1.87	1.35	-0.38	0.19
P07686	HEXB	Cancer_only	-1.38	2.38	-0.39	0.09
P55058	PLTP	Cancer_only	-1.77	1.90	-0.39	0.32
P43243	MATR3	Cancer_only	-1.17	2.30	-0.40	0.08
Q5SNT2	TMEM201	Cancer_only	-1.20	1.90	-0.40	0.49
Q96S66	CLCC1	Cancer_only	-1.66	1.55	-0.41	0.15
Q07955	SRSF1	Cancer_only	-1.37	1.79	-0.44	0.22
P67812	SEC11A	Cancer_only	-1.65	1.92	-0.45	0.09
Q9Y5M8	SRPRB	Cancer_only	-2.31	1.98	-0.48	0.13
Q9UNX4	WDR3	Cancer_only	-1.38	1.99	-0.48	0.23
Q6P2Q9	PRPF8	Cancer_only	-1.66	2.13	-0.49	0.20
P08069	IGF1R	Cancer_only	-1.55	1.53	-0.49	0.19
Q9UJS0	SLC25A13	Cancer_only	-1.83	2.10	-0.49	0.13
Q96EK9	KTI12	Cancer_only	1.53	1.45	-0.52	0.10
P55265	ADAR	Cancer_only	-1.48	1.55	-0.52	0.14
P49795	RGS19	Cancer_only	1.23	1.83	-0.52	0.24
Q16540	MRPL23	Cancer_only	-1.77	1.63	-0.52	0.22
Q5EB52	MEST	Cancer_only	1.25	1.40	-0.52	0.27
Q0JRZ9	FCHO2	Cancer_only	-1.05	1.51	-0.54	0.28

P51114	FXR1	Cancer_only	-1.28	2.21	-0.54	0.55
Q7Z6J6	FRMD5	Cancer_only	-1.29	1.53	-0.54	0.33
O60832	DKC1	Cancer_only	-1.28	2.10	-0.55	0.26
P51946	CCNH	Cancer_only	-1.14	1.50	-0.56	0.23
P50613	CDK7	Cancer_only	-1.56	1.47	-0.56	0.55
Q9NZM4	GLTSCR1	Cancer_only	-2.24	1.52	-0.56	0.23
Q9NZ71	RTEL1	Cancer_only	-2.92	1.48	-0.56	0.51
P62280	RPS11	Cancer_only	-1.79	1.84	-0.57	0.36
P38435	GGCX	Cancer_only	-1.20	3.22	-0.57	0.54
P08236	GUSB	Cancer_only	-1.46	1.58	-0.57	0.28
Q5C9Z4	NOM1	Cancer_only	-1.57	1.60	-0.59	0.44
Q9P275	USP36	Cancer_only	-1.93	1.51	-0.60	0.63
O95140	MFN2	Cancer_only	-1.40	3.45	-0.61	0.41
Q9Y2X3	NOP58	Cancer_only	-1.96	3.51	-0.61	0.13
O75146	HIP1R	Cancer_only	-1.20	1.42	-0.61	0.37
Q5JTH9	RRP12	Cancer_only	-3.17	2.30	-0.62	0.20
O75400	PRPF40A	Cancer_only	-1.05	1.44	-0.63	0.29
Q9Y3B9	RRP15	Cancer_only	-2.23	1.81	-0.63	0.18
Q92575	UBXN4	Cancer_only	-1.82	1.43	-0.64	0.10
Q9BYG3	NIFK	Cancer_only	-1.78	1.71	-0.65	0.55
Q9NVH1	DNAJC11	Cancer_only	-1.51	1.47	-0.66	0.33
Q8TAE8	GADD45GIP1	Cancer_only	-1.71	1.40	-0.69	1.21
Q15061	WDR43	Cancer_only	-1.22	1.60	-0.69	0.55

Q9UBH6	XPR1	Cancer_only	-1.84	1.43	-0.69	2.05
Q68E01	INTS3	Cancer_only	-1.47	1.36	-0.70	0.37
Q9H9J4	USP42	Cancer_only	-1.14	2.06	-0.70	1.08
O75880	SCO1	Cancer_only	-1.04	2.50	-0.70	0.15
Q4J6C6	PREPL	Cancer_only	-1.53	2.46	-0.71	0.43
Q9BRT6	LLPH	Cancer_only	-2.48	1.39	-0.74	0.25
Q9BQE4	VIMP	Cancer_only	-1.66	1.62	-0.74	0.22
A0FGR8	ESYT2	Cancer_only	-1.18	1.70	-0.75	0.36
Q92621	NUP205	Cancer_only	-1.60	1.71	-0.75	0.28
Q14191	WRN	Cancer_only	-1.81	1.39	-0.75	0.62
Q01780	EXOSC10	Cancer_only	-1.86	2.12	-0.76	0.22
Q02818	NUCB1	Cancer_only	-1.22	2.02	-0.76	0.31
P02786	TFRC	Cancer_only	-3.54	1.66	-0.77	0.12
Q92785	DPF2	Cancer_only	-1.95	1.67	-0.77	0.25
P61964	WDR5	Cancer_only	-1.32	1.88	-0.78	0.44
Q8N3R9	MPP5	Cancer_only	-1.02	1.72	-0.78	0.76
Q96JC9	EAF1	Cancer_only	-1.21	3.13	-0.80	0.30
Q15361	TTF1	Cancer_only	-1.38	1.70	-0.80	0.60
P42356	PI4KA	Cancer_only	-1.16	1.52	-0.80	0.98
Q96FV9	THOC1	Cancer_only	-1.68	2.08	-0.81	0.24
P56556	NDUFA6	Cancer_only	-1.34	1.58	-0.82	0.28
Q13112	CHAF1B	Cancer_only	-2.48	1.81	-0.84	0.18
P54709	ATP1B3	Cancer_only	-2.40	1.39	-0.84	0.21

Q96D53	ADCK4	Cancer_only	-1.75	2.50	-0.84	0.43
Q8TCT9	HM13	Cancer_only	-1.62	1.53	-0.85	0.24
Q5VZL5	ZMYM4	Cancer_only	-1.23	1.31	-0.85	0.62
Q13330	MTA1	Cancer_only	-1.83	1.45	-0.86	0.65
Q15326	ZMYND11	Cancer_only	-1.02	1.86	-0.86	0.62
Q8NEY1	NAV1	Cancer_only	-1.66	2.53	-0.87	0.78
O15164	TRIM24	Cancer_only	-1.84	3.17	-0.87	0.69
Q7Z460	CLASP1	Cancer_only	-1.49	1.75	-0.87	0.41
P54886	ALDH18A1	Cancer_only	-1.70	1.67	-0.87	0.25
Q6P1J9	CDC73	Cancer_only	-1.16	3.51	-0.87	1.82
Q70CQ2	USP34	Cancer_only	-1.95	1.31	-0.87	1.03
Q96RP9	GFM1	Cancer_only	-2.71	1.92	-0.87	0.24
Q9H3N1	TMX1	Cancer_only	-1.86	1.69	-0.87	0.26
P07711	CTSL	Cancer_only	-2.16	1.50	-0.88	0.52
O60508	CDC40	Cancer_only	-1.59	1.55	-0.89	0.44
Q8TDD1	DDX54	Cancer_only	-2.95	1.41	-0.90	0.26
Q96NW4	ANKRD27	Cancer_only	-1.31	1.39	-0.90	1.12
P51513	NOVA1	Cancer_only	-2.21	1.55	-0.90	1.42
Q2KHR3	QSER1	Cancer_only	-1.83	1.38	-0.91	0.64
Q9NQ50	MRPL40	Cancer_only	-1.22	2.27	-0.92	0.51
Q9BZF1	OSBPL8	Cancer_only	-1.73	1.49	-0.92	0.35
O94762	RECQL5	Cancer_only	-1.19	1.83	-0.92	0.63
O75643	SNRNP200	Cancer_only	-1.78	1.50	-0.92	0.44

Q9NU22	MDN1	Cancer_only	-1.84	2.22	-0.93	0.80
P27487	DPP4	Cancer_only	-1.79	1.47	-0.93	0.11
Q9UBB9	TFIP11	Cancer_only	-1.21	1.64	-0.93	0.66
Q29RF7	PDS5A	Cancer_only	-1.79	2.65	-0.94	0.55
O43405	COCH	Cancer_only	-1.70	1.32	-0.95	0.23
O14672	ADAM10	Cancer_only	-1.46	1.41	-0.95	1.22
Q13795	ARFRP1	Cancer_only	-2.38	1.51	-0.95	0.33
Q13535	ATR	Cancer_only	-1.17	1.44	-0.96	0.83
Q9BZG1	RAB34	Cancer_only	-1.22	1.32	-0.97	0.35
Q58EX7	PLEKHG4	Cancer_only	-1.82	1.67	-0.97	0.59
Q9BRU9	UTP23	Cancer_only	-1.43	1.91	-0.97	2.10
O43674	NDUFB5	Cancer_only	-1.20	1.40	-0.98	0.37
Q9Y3U8	RPL36	Cancer_only	-1.65	2.14	-0.98	0.99
Q8TEY7	USP33	Cancer_only	-1.42	1.64	-0.98	0.30
Q96HN2	AHCYL2	Cancer_only	-1.15	1.31	-0.99	0.41
Q14CZ7	FASTKD3	Cancer_and_CAF	-1.71	2.17	-1.00	2.42
Q9H2P0	ADNP	Cancer_only	-1.36	1.36	-1.00	0.46
P32189	GK	Cancer_only	-1.18	1.57	-1.00	0.44
Q6UXN9	WDR82	CAF_only	-0.27	0.15	-1.00	1.66
Q8TD57	DNAH3	CAF_only	-0.47	0.06	-1.01	1.56
P51159	RAB27A	Cancer_only	-2.63	1.94	-1.01	0.21
Q92830	KAT2A	CAF_only	-1.46	1.07	-1.02	1.57
Q07864	POLE	Cancer_only	-2.66	1.52	-1.02	0.35

Q96KR1	ZFR	Cancer_only	-2.23	1.69	-1.02	0.47
Q9UBT7	CTNNAL1	Cancer_only	-3.16	1.69	-1.02	1.21
Q9NVA1	UQCC1	Cancer_only	-1.43	1.52	-1.03	0.69
Q96I51	WBSCR16	Cancer_only	-1.13	1.86	-1.03	0.44
Q13895	BYSL	Cancer_only	-4.06	2.09	-1.03	0.33
Q9BVK2	ALG8	CAF_only	-0.17	0.29	-1.05	1.72
Q8NF37	LPCAT1	Cancer_only	-2.15	1.70	-1.06	1.03
Q9BTC0	DIDO1	CAF_only	-0.36	1.42	-1.06	1.59
O43824	GTPBP6	Cancer_only	-2.22	1.40	-1.07	1.00
Q14739	LBR	Cancer_only	-1.81	1.34	-1.07	0.25
O60264	SMARCA5	Cancer_only	-2.50	1.46	-1.07	0.80
P56282	POLE2	Cancer_only	-1.99	1.49	-1.07	1.18
P47985	UQCRFS1	CAF_only	-0.65	0.77	-1.07	1.79
O76021	RSL1D1	Cancer_only	-5.31	1.49	-1.07	0.26
Q14562	DHX8	Cancer_only	-1.48	2.93	-1.07	0.51
Q15424	SAFB	Cancer_only	-1.17	2.43	-1.08	0.29
Q13405	MRPL49	Cancer_only	-2.08	1.70	-1.08	0.45
O60462	NRP2	Cancer_only	-1.94	1.32	-1.09	0.45
O60306	AQR	Cancer_only	-1.97	1.36	-1.10	0.52
Q9UGP8	SEC63	CAF_only	-1.01	0.45	-1.10	2.15
P17010	ZFX	CAF_only	-0.42	0.34	-1.11	1.43
Q9H7B2	RPF2	Cancer_only	-3.03	1.40	-1.11	0.33
P56945	BCAR1	CAF_only	-0.93	0.58	-1.11	1.44

Q9Y4D8	HECTD4	Cancer_only	-1.19	2.57	-1.11	1.07
Q99538	LGMN	CAF_only	-0.24	0.19	-1.12	1.33
Q99943	AGPAT1	CAF_only	-0.86	2.05	-1.12	1.37
P28908	TNFRSF8	Cancer_only	-3.28	1.52	-1.12	0.61
Q9HCD6	TANC2	Cancer_only	-1.51	2.08	-1.13	0.63
Q92667	AKAP1	Cancer_only	-1.54	1.37	-1.13	0.68
Q96A35	MRPL24	Cancer_only	-1.26	1.75	-1.13	0.78
Q96KC8	DNAJC1	Cancer_only	-1.04	2.62	-1.13	0.46
Q9BZD4	NUF2	Cancer_only	-1.45	1.65	-1.14	0.95
Q15067	ACOX1	CAF_only	-1.13	0.92	-1.14	1.94
P49790	NUP153	Cancer_only	-1.54	2.38	-1.14	0.59
Q6P1X5	TAF2	CAF_only	-1.90	1.17	-1.15	1.65
Q12788	TBL3	Cancer_only	-2.39	1.88	-1.16	0.32
Q12830	BPTF	Cancer_only	-1.50	1.54	-1.16	0.99
Q6IEG0	SNRNP48	Cancer_only	-1.74	1.35	-1.16	0.96
Q15047	SETDB1	CAF_only	-0.70	0.99	-1.18	1.99
O00472	ELL2	Cancer_only	-1.28	1.37	-1.18	0.26
Q96SK2	TMEM209	CAF_only	-0.98	0.40	-1.18	1.33
Q9BQE5	APOL2	CAF_only	-1.04	1.18	-1.19	1.37
P50416	CPT1A	Cancer_only	-3.38	1.64	-1.19	0.19
Q96TA2	YME1L1	Cancer_only	-1.89	1.41	-1.19	0.48
Q96SI9	STRBP	Cancer_only	-2.83	1.44	-1.19	0.25
O75746	SLC25A12	Cancer_only	-1.84	1.33	-1.19	0.36

O14578	CIT	Cancer_only	-2.28	1.34	-1.19	0.95
Q96RR1	PEO1	CAF_only	-1.17	0.63	-1.19	2.34
Q6Q0C0	TRAF7	Cancer_only	-1.88	1.38	-1.20	0.92
P16422	EPCAM	CAF_only	-1.11	0.56	-1.20	1.59
Q5T9A4	ATAD3B	Cancer_only	-2.00	1.44	-1.20	0.48
O43570	CA12	Cancer_only	-1.25	1.43	-1.21	1.05
P35052	GPC1	Cancer_only	-1.51	1.54	-1.21	0.57
Q03001	DST	CAF_only	-1.88	0.90	-1.22	1.44
Q9P219	CCDC88C	CAF_only	-1.86	0.93	-1.22	1.39
Q9NTI5	PDS5B	Cancer_only	-1.91	1.41	-1.22	0.52
Q9UBS9	SUCO	Cancer_only	-2.03	2.46	-1.22	0.43
Q9ULL5	PRR12	CAF_only	-0.66	1.05	-1.23	2.03
Q9BSW2	CRACR2A	Cancer_only	-1.57	1.96	-1.23	0.87
Q9Y2C4	EXOG	Cancer_only	-1.85	1.47	-1.24	0.33
Q8N201	INTS1	Cancer_only	-3.08	2.84	-1.25	0.32
P12109	COL6A1	Cancer_only	-1.60	1.48	-1.25	1.16
P56182	RRP1	Cancer_only	-2.67	1.60	-1.25	0.40
P42285	SKIV2L2	Cancer_only	-2.87	1.51	-1.25	0.33
P42892	ECE1	Cancer_only	-2.09	1.52	-1.25	0.43
A6NHR9	SMCHD1	Cancer_only	-2.40	1.83	-1.25	0.37
Q9HCK8	CHD8	CAF_only	-1.94	1.19	-1.26	1.75
Q7L2E3	DHX30	Cancer_only	-2.17	1.48	-1.26	0.49
Q9H9Y2	RPF1	Cancer_only	-1.55	1.70	-1.27	0.36

Q8IZ81	ELMOD2	Cancer_only	-1.18	1.34	-1.27	0.68
Q92796	DLG3	CAF_only	-1.00	0.79	-1.27	1.52
Q15464	SHB	CAF_only	-1.51	1.04	-1.28	1.33
Q86XL3	ANKLE2	Cancer_only	-1.49	1.39	-1.29	0.67
Q96RN5	MED15	Cancer_only	-1.66	1.66	-1.29	0.59
P13726	F3	Cancer_only	-3.77	1.34	-1.29	0.25
Q9NUL7	DDX28	Cancer_only	-2.57	1.50	-1.29	0.66
Q9Y324	FCF1	Cancer_only	-1.63	2.62	-1.30	1.06
P46087	NOP2	Cancer_only	-2.31	1.50	-1.30	0.31
Q9NV96	TMEM30A	Cancer_only	-2.25	1.72	-1.31	0.34
Q9NRG9	AAAS	Cancer_only	-1.98	1.61	-1.31	0.38
Q9Y4B6	VPRBP	CAF_only	-1.79	1.17	-1.31	1.69
Q8NBU5	ATAD1	Cancer_only	-2.05	1.70	-1.31	0.41
Q9UQ90	SPG7	Cancer_only	-2.20	3.80	-1.31	0.35
Q9BYD2	MRPL9	Cancer_only	-2.52	1.59	-1.32	0.34
Q96SZ6	CDK5RAP1	Cancer_and_CAF	-2.30	1.65	-1.32	1.50
Q9Y6M5	SLC30A1	CAF_only	-1.28	1.17	-1.32	2.05
Q9UK61	FAM208A	Cancer_only	-1.96	2.31	-1.33	1.08
O95613	PCNT	Cancer_only	-1.94	1.59	-1.33	1.26
Q9BYC5	FUT8	Cancer_only	-2.88	1.76	-1.33	0.51
Q92968	PEX13	Cancer_only	-2.37	1.67	-1.33	0.39
Q9Y375	NDUFAF1	CAF_only	-1.51	0.46	-1.34	1.60
Q9BQ39	DDX50	Cancer_only	-2.17	1.59	-1.35	0.50

Q9UHA3	RSL24D1	Cancer_only	-4.01	1.32	-1.35	0.21
Q5T160	RARS2	CAF_only	-1.60	0.88	-1.35	2.76
Q9H6R4	NOL6	Cancer_only	-2.73	1.58	-1.37	0.65
Q9NUB1	ACSS1	CAF_only	-1.20	0.76	-1.37	1.80
Q9BXK1	KLF16	CAF_only	-2.85	1.10	-1.38	1.62
Q99569	PKP4	Cancer_only	-2.66	1.32	-1.38	0.52
Q5MIZ7	SMEK2	Cancer_only	-1.15	1.68	-1.38	0.71
Q9BV23	ABHD6	Cancer_only	-1.67	2.08	-1.39	0.47
Q86U38	NOP9	Cancer_only	-1.72	2.02	-1.39	0.57
Q92576	PHF3	CAF_only	-1.51	1.14	-1.40	1.59
Q9NPF0	CD320	Cancer_only	-3.45	1.86	-1.40	0.25
Q12791	KCNMA1	Cancer_only	-2.53	1.75	-1.41	0.98
Q8TDM6	DLG5	CAF_only	-1.26	1.18	-1.41	1.72
A5PLL7	TMEM189	Cancer_only	-2.44	1.36	-1.42	1.06
Q9H2D1	SLC25A32	Cancer_only	-4.03	1.54	-1.42	0.23
Q8TED0	UTP15	Cancer_only	-2.08	1.84	-1.42	0.41
P07197	NEFM	Cancer_only	-2.14	2.09	-1.43	0.45
Q9BVI4	NOC4L	Cancer_only	-2.87	1.95	-1.44	0.66
Q15070	OXA1L	Cancer_only	-3.57	1.56	-1.44	0.27
Q15050	RRS1	Cancer_only	-3.66	1.73	-1.46	0.45
Q8N8A6	DDX51	CAF_only	-2.31	1.08	-1.46	1.69
Q96G74	OTUD5	Cancer_only	-1.79	1.47	-1.47	0.86
P21397	MAOA	Cancer_only	-1.12	1.57	-1.47	0.53

Q9Y2B1	TMEM5	CAF_only	-0.29	0.18	-1.48	1.44
Q92805	GOLGA1	Cancer_and_CAF	-1.67	1.78	-1.49	1.78
P21675	TAF1	CAF_only	-1.54	0.76	-1.49	1.38
Q9Y320	TMX2	Cancer_only	-2.42	1.73	-1.50	0.33
Q6ZU80	CEP128	CAF_only	-2.41	0.65	-1.50	1.67
Q9NRC1	ST7	CAF_only	-1.55	1.01	-1.51	1.59
Q8N139	ABCA6	CAF_only	-0.62	0.53	-1.51	1.46
Q96K49	TMEM87B	Cancer_only	-2.61	1.50	-1.51	0.51
Q8NCD3	HJURP	CAF_only	-0.28	0.80	-1.51	1.43
Q9H7L9	SUDS3	Cancer_and_CAF	-1.68	1.41	-1.52	2.27
Q8TDN6	BRIX1	Cancer_only	-2.89	1.63	-1.54	0.81
Q9NS91	RAD18	Cancer_only	-2.98	1.38	-1.55	0.27
O14975	SLC27A2	CAF_only	-1.09	0.50	-1.56	3.23
P13598	ICAM2	CAF_only	-0.47	0.17	-1.56	1.91
Q96B26	EXOSC8	CAF_only	-1.04	0.95	-1.57	1.53
P54132	BLM	Cancer_only	-3.12	1.39	-1.57	0.32
Q9NSI2	FAM207A	Cancer_only	-3.13	1.48	-1.57	0.65
Q14686	NCOA6	Cancer_only	-1.25	1.62	-1.58	0.41
Q8NBN3	TMEM87A	Cancer_only	-2.04	1.66	-1.59	0.38
O15381	NVL	Cancer_only	-1.45	1.58	-1.59	0.75
Q9BVS5	TRMT61B	Cancer_only	-2.34	1.44	-1.60	0.49
Q6UB35	MTHFD1L	Cancer_only	-2.78	2.38	-1.60	0.47
O75027	ABCB7	CAF_only	-1.45	0.62	-1.60	1.33

Q4LE39	ARID4B	Cancer_only	-1.91	1.31	-1.62	1.12
Q9NW13	RBM28	Cancer_only	-4.17	1.88	-1.62	0.40
Q9Y2Z2	MTO1	CAF_only	-1.47	0.56	-1.63	2.07
Q9UL63	MKLN1	Cancer_only	-2.42	1.87	-1.63	0.78
Q9HCP0	CSNK1G1	Cancer_only	-2.86	1.77	-1.65	0.54
Q96HE9	PRR11	Cancer_only	-4.02	1.36	-1.66	0.27
Q96N11	C7orf26	CAF_only	-2.14	0.72	-1.67	1.49
P29375	KDM5A	CAF_only	-2.17	0.87	-1.67	1.47
O00443	PIK3C2A	Cancer_only	-2.57	1.85	-1.68	1.20
Q8NHH9	ATL2	CAF_only	-2.47	0.77	-1.68	1.37
Q8WWV3	RTN4IP1	Cancer_only	-1.09	1.57	-1.70	0.69
Q9NWK9	ZNHIT6	Cancer_only	-2.93	2.51	-1.71	0.83
O14730	RIOK3	Cancer_only	1.44	1.37	-1.72	0.16
Q9H8H0	NOL11	Cancer_only	-2.44	1.37	-1.72	0.68
O43808	SLC25A17	CAF_only	-1.44	0.53	-1.75	1.67
Q13137	CALCOCO2	Cancer_only	-1.23	1.69	-1.76	0.43
Q13111	CHAF1A	Cancer_only	-2.95	1.66	-1.76	0.56
P42704	LRPPRC	Cancer_only	-4.25	1.42	-1.77	0.44
Q53EU6	AGPAT9	Cancer_and_CAF	-2.53	1.58	-1.78	1.35
Q14684	RRP1B	Cancer_only	-2.40	1.39	-1.78	0.43
Q9P2G9	KLHL8	CAF_only	-1.62	1.03	-1.78	1.33
Q8IXM3	MRPL41	CAF_only	-2.26	0.64	-1.79	1.53
Q9NXE4	SMPD4	Cancer_only	-1.10	1.49	-1.79	0.90

Q5QJE6	DNTTIP2	Cancer_only	-3.17	1.72	-1.79	0.54
Q14938	NFIX	Cancer_only	-1.08	1.50	-1.80	1.17
O94887	FARP2	CAF_only	-1.58	0.64	-1.81	1.33
P82650	MRPS22	CAF_only	-2.38	0.86	-1.82	2.68
Q12893	TMEM115	Cancer_only	-1.42	1.61	-1.82	1.15
Q8IWA0	WDR75	Cancer_only	-2.41	1.40	-1.83	0.48
P01137	TGFB1	Cancer_only	-2.30	2.58	-1.83	0.41
P09001	MRPL3	Cancer_only	-2.67	1.47	-1.83	0.77
Q96DX4	RSPRY1	CAF_only	-1.77	0.70	-1.86	1.35
Q9GZR2	REXO4	Cancer_only	-2.73	1.51	-1.88	0.80
Q9H6F5	CCDC86	Cancer_only	-3.89	1.52	-1.88	0.78
Q9BV36	MLPH	Cancer_only	-4.48	1.67	-1.89	0.48
P24385	CCND1	Cancer_only	-2.09	1.64	-1.90	0.84
Q13601	KRR1	Cancer_only	-2.73	1.79	-1.91	0.54
O14966	RAB29	Cancer_only	-2.60	1.53	-1.91	0.67
Q9ULH0	KIDINS220	Cancer_only	-2.17	1.46	-1.92	0.92
Q6PJW8	CNST	CAF_only	-1.12	0.45	-1.92	1.78
Q6P087	RPUSD3	CAF_only	-3.35	1.08	-1.94	1.88
P82933	MRPS9	CAF_only	-2.52	1.22	-1.96	1.80
Q9Y2H6	FNDC3A	Cancer_and_CAF	-2.32	1.51	-1.96	1.49
O14686	KMT2D	CAF_only	-2.93	1.18	-1.98	1.36
Q658P3	STEAP3	Cancer_only	-4.47	1.62	-1.99	0.97
A4D1E9	GTPBP10	Cancer_only	-3.76	1.33	-2.01	0.85

P13196	ALAS1	Cancer_only	-4.85	1.77	-2.02	0.28
Q13823	GNL2	Cancer_only	-5.92	1.38	-2.02	0.46
P27105	STOM	Cancer_only	-2.47	1.94	-2.03	0.80
Q13610	PWP1	Cancer_only	-3.63	1.83	-2.03	0.50
Q9NV06	DCAF13	Cancer_only	-4.44	1.69	-2.04	0.47
O14777	NDC80	CAF_only	-1.71	1.02	-2.08	1.51
Q96QC0	PPP1R10	CAF_only	-2.25	0.67	-2.10	1.41
Q14690	PDCD11	Cancer_only	-3.99	1.88	-2.12	0.38
P55201	BRPF1	CAF_only	-2.29	0.69	-2.12	1.41
Q14669	TRIP12	Cancer_and_CAF	-3.17	2.10	-2.17	1.63
P46100	ATRX	CAF_only	-2.49	0.83	-2.20	1.82
Q6RFH5	WDR74	CAF_only	-3.09	1.06	-2.22	1.40
O75127	PTCD1	Cancer_only	-3.38	1.51	-2.22	0.70
P82914	MRPS15	CAF_only	-2.66	0.95	-2.24	2.15
Q13277	STX3	CAF_only	-0.84	0.27	-2.26	1.47
Q6P0N0	MIS18BP1	Cancer_only	-3.05	1.61	-2.28	0.32
Q8TCJ2	STT3B	Cancer_only	-4.17	1.47	-2.28	0.29
O43493	TGOLN2	Cancer_only	-3.07	1.45	-2.31	0.99
Q8TAA9	VANGL1	Cancer_only	-2.83	2.50	-2.31	0.69
Q5TEC6	HIST2H3PS2	CAF_only	-2.57	0.67	-2.35	2.10
Q9NYH9	UTP6	Cancer_only	-4.22	1.35	-2.36	0.45
P42696	RBM34	Cancer_only	-3.17	1.93	-2.37	0.59
Q9NVN8	GNL3L	Cancer_only	-2.25	1.45	-2.37	0.79

Q9HCE3	ZNF532	CAF_only	-1.62	0.97	-2.38	1.39
Q8WU67	ABHD3	Cancer_only	-3.19	1.74	-2.41	0.59
Q92673	SORL1	Cancer_only	-2.82	1.40	-2.43	0.60
O75326	SEMA7A	Cancer_only	-4.68	1.38	-2.43	1.17
Q9P1Y6	PHRF1	CAF_only	-1.69	0.39	-2.43	1.84
Q9Y385	UBE2J1	Cancer_only	-4.58	1.44	-2.45	0.78
O00400	SLC33A1	CAF_only	-1.73	0.60	-2.47	1.41
Q9Y2R9	MRPS7	Cancer_only	-3.96	1.39	-2.49	0.47
Q8IWB1	ITPRIP	CAF_only	-0.47	1.20	-2.54	1.41
Q8TCX1	DYNC2LI1	Cancer_only	-2.80	1.75	-2.55	0.65
Q8TEP8	CEP192	Cancer_only	-1.55	1.32	-2.59	0.94
Q9NRL2	BAZ1A	Cancer_only	-3.94	1.30	-2.59	0.88
Q9NR48	ASH1L	Cancer_only	-2.17	1.33	-2.60	1.18
Q99698	LYST	CAF_only	-0.87	0.91	-2.61	1.59
Q9NXX6	NSMCE4A	CAF_only	-3.37	0.96	-2.63	1.82
P24821	TNC	CAF_only	-2.60	0.57	-2.64	1.38
Q0P6H9	TMEM62	CAF_only	-2.22	0.92	-2.80	1.45
Q9Y6X8	ZHX2	CAF_only	-0.29	0.08	-2.80	2.17
Q13636	RAB31	Cancer_and_CAF	-2.51	1.42	-2.85	1.52
Q15397	KIAA0020	CAF_only	-4.49	1.04	-2.93	1.67
P29317	EPHA2	Cancer_only	-4.43	1.79	-2.98	1.05
P19438	TNFRSF1A	Cancer_only	-3.97	2.70	-3.06	0.47
Q9Y3C1	NOP16	Cancer_only	-4.65	1.78	-3.07	0.77

Q9BVJ6	UTP14A	CAF_only	-4.68	1.06	-3.13	2.45
P51153	RAB13	Cancer_and_CAF	-6.61	1.81	-3.38	1.99
Q9H4K7	MTG2	Cancer_only	-4.61	2.27	-3.41	0.63
Q15800	MSMO1	Cancer_only	-4.01	1.33	-3.42	0.56
Q9BT17	MTG1	Cancer_only	-4.88	1.55	-3.76	0.79
P37268	FDFT1	Cancer_only	-8.06	2.48	-4.64	0.83
Q9BVP2	GNL3	Cancer_only	-7.69	1.39	-5.67	1.20

Appendix table 12- Phosphoproteome changes with 6MP in cancer or CAF CM

Accession	Phosphoprotein	Significant change in	Log_2(Drug/DMSO) in Cancer CM	$-Log_{10}$(p value) in Cancer CM	Log_2(Drug/DMSO) in CAF CM	$-Log_{10}$(p value) in CAF CM
P47712 2xPhospho [S727;S729]	PLA2G4A S727;S729	Cancer_only	5.97	2.70	8.66	0.57
P29084 [26-38]	GTF2E2 26-38	Cancer_only	2.38	2.25	6.11	0.68
P09874 1xPhospho [S519]	PARP1 S519	Cancer_only	4.97	1.86	5.49	1.23
P07947 1xPhospho [T427]	YES1 T427	CAF_only	5.61	0.76	5.48	2.11
P12931 1xPhospho [T420]	SRC T420	CAF_only	5.61	0.76	5.48	2.11
O43852 1xPhospho [S44]	CALU S44	CAF_only	6.01	0.80	4.83	2.14
O60343 [749-768]	TBC1D4 749-768	Cancer_only	2.82	1.79	4.80	1.22
Q01433 1xPhospho [S190]	AMPD2 S190	CAF_only	6.41	1.22	4.62	1.40
Q6PKG0 1xPhospho [S1040]	LARP1 S1040	CAF_only	0.14	0.37	4.60	1.32
Q09666 1xPhospho [S3360]	AHNAK S3360	Cancer_only	3.31	2.06	4.59	0.69
Q8WW12 1xPhospho [S156]	PCNP S156	Cancer_and_CAF	3.37	1.41	4.55	1.32
P46063 [600-614]	RECQL 600-614	Cancer_and_CAF	3.03	2.02	4.41	1.32
Q13492 1xPhospho [S16]	PICALM S16	Cancer_only	3.07	1.46	4.27	0.49
Q08945 1xPhospho [S657]	SSRP1 S657	Cancer_only	3.79	1.63	4.26	0.63
Q8N6H7 1xPhospho [S432]	ARFGAP2 S432	CAF_only	4.88	1.25	4.25	1.38
P18615 [89-95]	NELFE 89-95	Cancer_only	2.60	1.53	4.23	0.63
P06748 1xPhospho [S227]	NPM1 S227	Cancer_only	4.60	1.55	4.18	0.97
Q9UEE9 1xPhospho [S143]	CFDP1 S143	CAF_only	2.12	0.48	4.16	1.38
Q9Y2W1 1xPhospho [S575]	THRAP3 S575	CAF_only	2.02	0.65	4.12	1.31
P08651 1xPhospho [S279]	NFIC S279	CAF_only	1.70	0.72	4.07	1.82

Q96RL1 2xPhospho [S402;T409]	UIMC1 S402;T409	Cancer_only	3.69	1.55	4.04	0.72
A0JNW5 1xPhospho [S752]	UHRF1BP1L S752	CAF_only	3.36	0.91	3.98	2.58
Q9UKF7 2xPhospho [S270;S274]	PITPNC1 S270;S274	Cancer_only	2.69	2.68	3.93	0.75
Q6Y7W6 1xPhospho [S1100]	GIGYF2 S1100	Cancer_only	2.35	1.34	3.92	0.82
Q5SW79 2xPhospho [S1160;S1165]	CEP170 S1160;S1165	Cancer_only	-1.35	1.70	3.67	0.78
Q9UJU6 1xPhospho [T291]	DBNL T291	Cancer_only	3.46	1.77	3.56	0.61
Q92974 1xPhospho [S143]	ARHGEF2 S143	Cancer_only	1.10	1.64	3.56	0.60
O00571 1xPhospho [S612]	DDX3X S612	Cancer_and_CAF	4.47	1.54	3.52	2.07
Q9ULW0 2xPhospho [S121;S125]	TPX2 S121;S125	CAF_only	6.11	1.20	3.45	1.32
P78371 1xPhospho [S260]	CCT2 S260	Cancer_only	-1.74	1.46	3.42	0.39
P46821 1xPhospho [S2327]	MAP1B S2327	Cancer_and_CAF	5.77	1.84	3.42	1.58
Q7Z6E9 1xPhospho [S815]	RBBP6 S815	CAF_only	3.20	0.66	3.40	1.32
Q13610 1xPhospho [S485]	PWP1 S485	CAF_only	0.07	0.09	3.37	2.13
P46063 1xPhospho [S603]	RECQL S603	CAF_only	2.23	0.79	3.36	1.57
Q8IYA6 1xPhospho [S503]	CKAP2L S503	CAF_only	3.57	0.72	3.36	2.44
O94808 1xPhospho [T227]	GFPT2 T227	Cancer_only	2.59	2.30	3.35	0.56
Q6ZSZ5 1xPhospho [S1264]	ARHGEF18 S1264	Cancer_only	3.59	1.37	3.33	1.03
Q8N5A5 1xPhospho [S373]	ZGPAT S373	CAF_only	2.78	0.84	3.30	1.81
Q9Y4K1 1xPhospho [S410]	AIM1 S410	Cancer_only	1.67	1.54	3.29	0.65
P28482 2xPhospho [T185;Y187]	MAPK1 T185;Y187	CAF_only	1.33	0.30	3.23	1.30
Q9Y247 1xPhospho [S121]	FAM50B S121	Cancer_only	2.36	2.13	3.21	0.40
Q32P44 2xPhospho [S889;S892]	EML3 S889;S892	CAF_only	2.58	1.24	3.21	1.70
O00571 1xPhospho [S83]	DDX3X S83	CAF_only	2.66	1.10	3.20	2.22

Q6T4R5 2xPhospho [T1198;S/T/Y]	NHS T1198;S/T/Y	CAF_only	2.48	0.68	3.19	1.77
P06748 2xPhospho [S218;T219]	NPM1 S218;T219	Cancer_and_CAF	6.08	1.60	3.17	1.43
Q9GZY8 1xPhospho [S155]	MFF S155	CAF_only	3.97	0.90	3.15	1.37
Q99704 1xPhospho [S269]	DOK1 S269	Cancer_only	2.53	2.04	3.06	0.59
Q15014 [63-74]	MORF4L2 63-74	CAF_only	1.75	0.59	3.05	1.51
Q9P246 1xPhospho [S626]	STIM2 S626	CAF_only	-0.50	0.33	3.04	1.50
Q9HCD5 1xPhospho [S96]	NCOA5 S96	Cancer_only	2.44	1.61	3.01	0.79
P23588 [340-356]	EIF4B 340-356	Cancer_only	3.86	1.76	3.00	1.20
Q5UIP0 1xPhospho [S1157]	RIF1 S1157	CAF_only	1.50	0.32	3.00	1.62
Q5JSZ5 1xPhospho [S1185]	PRRC2B S1185	Cancer_only	3.73	1.37	2.98	1.24
Q9UKI8 1xPhospho [S134]	TLK1 S134	CAF_only	2.01	0.65	2.96	2.07
Q01433 1xPhospho [S100]	AMPD2 S100	CAF_only	2.69	0.77	2.93	1.79
Q96T37 1xPhospho [S700]	RBM15 S700	Cancer_only	-2.37	1.91	2.93	0.47
Q8NFH8 1xPhospho [S254]	REPS2 S254	Cancer_only	4.57	1.32	2.93	0.77
Q09666 1xPhospho [S5832]	AHNAK S5832	CAF_only	4.19	0.47	2.92	1.78
P07900 [694-732]	HSP90AA1 694-732	CAF_only	0.79	0.31	2.92	1.62
Q53SF7 1xPhospho [S326]	COBLL1 S326	CAF_only	3.93	1.13	2.89	1.46
Q9H814 [340-376]	PHAX 340-376	CAF_only	1.19	0.21	2.88	1.93
Q8IVF2 [353-377]	AHNAK2 353-377	Cancer_only	2.67	1.42	2.88	0.73
Q8IVF2 1xPhospho [S102]	AHNAK2 S102	Cancer_and_CAF	3.25	2.15	2.87	3.09
Q8IVF2 1xPhospho [S509]	AHNAK2 S509	CAF_only	1.55	1.02	2.85	1.31
Q6UX04 1xPhospho [S203]	CWC27 S203	CAF_only	1.07	0.35	2.85	1.31
Q8IZL2 1xPhospho [S1156]	MAML2 S1156	CAF_only	-0.53	0.08	2.85	1.43

Q96JC9 1xPhospho [S29]	EAF1 S29	Cancer_only	2.68	1.44	2.85	0.68
P53396 1xPhospho [S481]	ACLY S481	CAF_only	-0.28	0.12	2.80	1.31
Q8NI08 1xPhospho [S89]	NCOA7 S89	Cancer_only	4.05	1.94	2.79	0.61
O94916 1xPhospho [S229]	NFAT5 S229	CAF_only	0.38	0.30	2.78	1.61
A8MQ03 1xPhospho [S16]	CYSRT1 S16	Cancer_only	1.13	1.61	2.74	0.83
Q8WWN8 1xPhospho [S1444]	ARAP3 S1444	Cancer_only	3.94	1.38	2.68	0.67
Q06481 2xPhospho [S213;Y233]	APLP2 S213;Y233	CAF_only	2.03	1.17	2.68	1.75
Q86U44 1xPhospho [S17]	METTL3 S17	CAF_only	0.51	0.21	2.67	2.16
P50454 1xPhospho [S141]	SERPINH1 S141	CAF_only	3.55	0.96	2.66	1.58
Q96AT1 1xPhospho [S115]	KIAA1143 S115	Cancer_only	1.13	1.50	2.66	0.45
P35613 1xPhospho [S368]	BSG S368	Cancer_only	2.35	1.80	2.65	0.48
Q9Y2X9 1xPhospho [S538]	ZNF281 S538	Cancer_only	1.42	1.79	2.64	1.11
P55011 1xPhospho [S77]	SLC12A2 S77	Cancer_and_CAF	1.32	1.58	2.64	1.38
Q09666 2xPhospho [T5839;S5857]	AHNAK T5839;S5857	Cancer_only	2.82	2.65	2.63	0.61
Q13443 1xPhospho [S733]	ADAM9 S733	Cancer_only	1.01	1.78	2.63	0.52
Q92890 1xPhospho [S299]	UFD1L S299	Cancer_only	3.42	1.31	2.61	0.73
Q15121 1xPhospho [S116]	PEA15 S116	Cancer_only	2.39	1.51	2.60	0.89
Q9Y294 1xPhospho [S166]	ASF1A S166	CAF_only	2.82	0.75	2.60	1.56
O60343 1xPhospho [S330]	TBC1D4 S330	CAF_only	1.18	0.62	2.59	1.55
P41440 1xPhospho [S485]	SLC19A1 S485	Cancer_only	-1.73	1.45	2.59	0.46
P16104 2xPhospho [T137;S140]	H2AFX T137;S140	CAF_only	2.51	0.91	2.56	1.75
Q15811 1xPhospho [S203]	ITSN1 S203	Cancer_and_CAF	2.31	1.31	2.56	2.17
O60669 1xPhospho [S454]	SLC16A7 S454	Cancer_only	2.85	1.69	2.55	0.76

Q08AD1 1xPhospho [S980]	CAMSAP2 S980	Cancer_only	2.50	1.33	2.55	0.56
Q8NC51 [328-345]	SERBP1 328-345	CAF_only	1.68	0.53	2.55	1.81
Q9BSJ6 1xPhospho [S16]	FAM64A S16	Cancer_only	2.53	2.68	2.55	1.05
Q8TBZ3 1xPhospho [S465]	WDR20 S465	CAF_only	3.29	0.49	2.54	1.50
Q9UHB6 1xPhospho [S15]	LIMA1 S15	Cancer_only	3.02	1.81	2.53	0.36
Q9UBT2 1xPhospho [S207]	UBA2 S207	Cancer_only	3.03	2.09	2.52	0.96
P85037 2xPhospho [T436;S441]	FOXK1 T436;S441	Cancer_only	3.87	2.11	2.51	1.18
P46821 1xPhospho [T527]	MAP1B T527	CAF_only	2.55	0.78	2.51	1.84
Q96T37 1xPhospho [S97]	RBM15 S97	Cancer_only	1.38	2.15	2.49	1.09
Q6NYC8 1xPhospho [S195]	PPP1R18 S195	Cancer_only	-1.54	1.56	2.49	0.85
Q8IWY8 1xPhospho [S237]	ZSCAN29 S237	CAF_only	1.33	0.32	2.47	2.00
Q13555 1xPhospho [S315]	CAMK2G S315	CAF_only	1.16	0.25	2.46	1.32
Q13557 1xPhospho [S315]	CAMK2D S315	CAF_only	1.16	0.25	2.46	1.32
Q13459 1xPhospho [S1122]	MYO9B S1122	Cancer_only	2.22	1.71	2.43	1.03
Q96AV8 1xPhospho [S410]	E2F7 S410	CAF_only	1.67	1.23	2.41	2.37
Q8N1G4 1xPhospho [S280]	LRRC47 S280	Cancer_only	2.25	1.42	2.41	0.99
Q6T4R5 1xPhospho [S1194]	NHS S1194	Cancer_only	2.86	1.61	2.41	1.10
O14639 1xPhospho [S452]	ABLIM1 S452	CAF_only	2.32	1.03	2.40	1.32
Q9NWQ8 1xPhospho [S239]	PAG1 S239	CAF_only	2.83	0.77	2.40	1.71
P00533 1xPhospho [S1104]	EGFR S1104	Cancer_only	1.60	1.61	2.37	0.81
P35813 [370-382]	PPM1A 370-382	CAF_only	0.63	0.60	2.35	1.78
Q8IZR5 1xPhospho [S194]	CMTM4 S194	Cancer_only	1.38	2.40	2.35	0.56
Q99459 1xPhospho [S303]	CDC5L S303	Cancer_only	3.07	3.48	2.34	0.84

Q14257 1xPhospho [S207]	RCN2 S207	CAF_only	1.21	0.64	2.34	1.76
Q15032 1xPhospho [S393]	R3HDM1 S393	Cancer_only	2.72	1.53	2.33	0.88
Q96PY6 1xPhospho [S414]	NEK1 S414	CAF_only	1.42	1.08	2.33	2.05
Q16543 [287-307]	CDC37 287-307	CAF_only	1.66	0.88	2.31	2.46
P55327 1xPhospho [S176]	TPD52 S176	Cancer_only	2.55	1.67	2.30	0.67
P18433 [787-802]	PTPRA 787-802	CAF_only	-0.95	0.56	2.30	2.04
Q16204 1xPhospho [S323]	CCDC6 S323	CAF_only	3.11	1.01	2.29	2.47
Q96PY5 1xPhospho [S190]	FMNL2 S190	Cancer_only	1.31	1.44	2.28	1.02
Q8IVF2 1xPhospho [S332]	AHNAK2 S332	Cancer_and_CAF	3.60	1.72	2.28	1.63
Q9UHB6 1xPhospho [S617]	LIMA1 S617	CAF_only	1.59	0.91	2.26	1.54
Q8N8S7 1xPhospho [T502]	ENAH T502	CAF_only	2.32	0.68	2.25	1.69
P29353 1xPhospho [S139]	SHC1 S139	Cancer_only	1.96	1.45	2.22	0.54
Q9Y2H5 1xPhospho [S448]	PLEKHA6 S448	CAF_only	2.22	0.71	2.22	2.22
Q13613 1xPhospho [S43]	MTMR1 S43	Cancer_only	2.08	2.33	2.22	0.75
Q9UKV3 1xPhospho [S990]	ACIN1 S990	Cancer_only	1.91	1.38	2.21	0.50
P17544 2xPhospho [T101;S]	ATF7 T101;S	CAF_only	1.85	0.81	2.21	1.39
Q13557 1xPhospho [S330]	CAMK2D S330	CAF_only	1.35	0.55	2.19	1.95
Q8N4S0 1xPhospho [S154]	CCDC82 S154	Cancer_and_CAF	2.04	1.33	2.19	2.97
P28290 [590-608]	SSFA2 590-608	CAF_only	0.45	0.20	2.19	1.38
P39748 1xPhospho [S349]	FEN1 S349	CAF_only	1.02	0.28	2.19	1.96
P04083 [30-53]	ANXA1 30-53	Cancer_only	1.54	1.63	2.18	1.04
O60841 2xPhospho [S107;S113]	EIF5B S107;S113	CAF_only	1.88	0.99	2.18	1.52
Q9H3M7 1xPhospho [S361]	TXNIP S361	Cancer_only	3.84	1.32	2.17	0.76

P16333 1xPhospho [S85]	NCK1 S85	CAF_only	0.17	0.06	2.16	1.64
Q14739 [96-107]	LBR 96-107	CAF_only	1.61	0.39	2.15	1.41
O95425 1xPhospho [T852]	SVIL T852	CAF_only	-0.42	0.06	2.15	2.45
Q9BX79 1xPhospho [S404]	STRA6 S404	CAF_only	-2.08	0.55	2.14	1.34
O95816 1xPhospho [S31]	BAG2 S31	CAF_only	-0.76	0.79	2.14	1.33
P19338 1xPhospho [T121]	NCL T121	Cancer_only	-2.22	1.38	2.13	0.20
Q9Y2H5 1xPhospho [S503]	PLEKHA6 S503	CAF_only	0.62	0.50	2.13	2.01
Q9BZ67 [437-443]	FRMD8 437-443	Cancer_only	1.56	1.95	2.13	0.39
Q93100 1xPhospho [S27]	PHKB S27	CAF_only	0.29	0.12	2.12	2.03
Q12965 1xPhospho [S980]	MYO1E S980	CAF_only	1.22	0.25	2.11	1.81
Q9BTT6 1xPhospho [T480]	LRRC1 T480	Cancer_only	2.45	1.38	2.11	0.96
Q8NHQ8 1xPhospho [S387]	RASSF8 S387	CAF_only	2.01	0.61	2.10	1.79
Q9ULF5 1xPhospho [T536]	SLC39A10 T536	Cancer_only	1.56	1.78	2.10	0.44
Q9UPT8 2xPhospho [S904;S/T]	ZC3H4 S904;S/T	CAF_only	1.35	0.51	2.09	1.44
P32780 1xPhospho [S357]	GTF2H1 S357	Cancer_only	1.49	1.76	2.09	1.00
P22234 1xPhospho [S27]	PAICS S27	Cancer_only	4.08	1.75	2.09	1.18
Q16512 1xPhospho [S380]	PKN1 S380	CAF_only	2.13	0.82	2.08	1.30
Q99618 1xPhospho [S94]	CDCA3 S94	Cancer_only	1.74	2.83	2.05	0.94
Q5T1R4 2xPhospho [S1433;S1437]	HIVEP3 S1433;S1437	CAF_only	-0.18	0.01	2.04	1.58
O95155 1xPhospho [S105]	UBE4B S105	Cancer_only	1.01	1.94	2.03	0.71
Q96D46 2xPhospho [S468;T470]	NMD3 S468;T470	Cancer_only	2.43	2.01	2.03	0.83
P35613 [350-375]	BSG 350-375	Cancer_only	1.21	1.43	2.03	0.38
O60245 1xPhospho [S966]	PCDH7 S966	CAF_only	2.62	0.95	2.01	1.69

Q9BVS4 2xPhospho [S350;S354]	RIOK2 S350;S354	CAF_only	-1.80	0.74	2.01	2.53
Q5SW79 1xPhospho [S881]	CEP170 S881	CAF_only	2.62	0.75	2.01	1.84
P49674 1xPhospho [S363]	CSNK1E S363	Cancer_only	-1.64	1.68	2.00	0.23
O00479 1xPhospho [S80]	HMGN4 S80	CAF_only	1.61	0.29	1.99	2.03
Q96QB1 1xPhospho [S986]	DLC1 S986	Cancer_and_CAF	2.29	1.73	1.98	1.43
Q8NBN3 1xPhospho [S499]	TMEM87A S499	Cancer_only	2.29	2.61	1.95	0.45
Q04637 1xPhospho [S1209]	EIF4G1 S1209	Cancer_and_CAF	1.12	1.95	1.95	1.36
Q86UE8 [66-76]	TLK2 66-76	CAF_only	-0.50	0.08	1.95	1.32
P98175 1xPhospho [S845]	RBM10 S845	Cancer_only	1.69	1.62	1.92	0.58
Q9H1H9 1xPhospho [S1698]	KIF13A S1698	Cancer_and_CAF	1.96	1.63	1.92	1.52
Q6P9G4 [159-183]	TMEM154 159-183	CAF_only	-0.95	0.54	1.91	1.32
Q66K74 2xPhospho [S631;S632]	MAP1S S631;S632	CAF_only	1.80	0.95	1.91	2.95
O96013 1xPhospho [S41]	PAK4 S41	Cancer_only	2.10	1.66	1.89	0.48
Q9BSI4 1xPhospho [S330]	TINF2 S330	CAF_only	-0.52	0.20	1.88	1.32
Q7Z699 1xPhospho [S238]	SPRED1 S238	CAF_only	3.99	0.85	1.88	1.53
P15923 2xPhospho [S509;S514]	TCF3 S509;S514	Cancer_and_CAF	2.64	1.39	1.87	1.96
Q00537 1xPhospho [S137]	CDK17 S137	Cancer_and_CAF	2.01	1.86	1.87	1.34
Q70CQ2 [1457-1481]	USP34 1457-1481	CAF_only	0.86	0.38	1.87	1.87
O60353 1xPhospho [S526]	FZD6 S526	Cancer_only	2.26	1.45	1.87	0.69
P38432 [481-496]	COIL 481-496	CAF_only	0.98	0.92	1.86	1.70
P40763 1xPhospho [Y705]	STAT3 Y705	CAF_only	1.23	0.45	1.86	1.63
Q5XUX1 1xPhospho [S18]	FBXW9 S18	CAF_only	2.73	1.01	1.86	2.58
Q9Y2K2 [1067-1105]	SIK3 1067-1105	CAF_only	0.07	0.01	1.85	1.61

Q8IYB1 1xPhospho [S433]	MB21D2 S433	CAF_only	0.45	0.14	1.85	1.45
Q96A00 1xPhospho [S26]	PPP1R14A S26	CAF_only	1.59	0.75	1.84	1.68
P58317 1xPhospho [T167]	ZNF121 T167	Cancer_and_CAF	2.30	1.82	1.83	1.32
Q0D2J5 1xPhospho [T223]	ZNF763 T223	Cancer_and_CAF	2.30	1.82	1.83	1.32
Q3KP31 1xPhospho [T379];1xPhospho [T463];1xPhospho [T491]	ZNF791 T379;T463;T491	Cancer_and_CAF	2.30	1.82	1.83	1.32
Q8N8S7 1xPhospho [T464]	ENAH T464	CAF_only	1.47	0.29	1.82	1.69
Q8WWI1 1xPhospho [S805]	LMO7 S805	Cancer_only	4.05	1.74	1.82	1.17
P08670 2xPhospho [S39;S42]	VIM S39;S42	CAF_only	1.10	0.99	1.82	1.32
P45973 1xPhospho [S85]	CBX5 S85	Cancer_only	3.70	3.20	1.82	0.54
P22314 1xPhospho [S24]	UBA1 S24	Cancer_only	2.88	1.54	1.81	0.70
Q9ULP9 1xPhospho [S480]	TBC1D24 S480	Cancer_only	1.03	2.11	1.80	0.42
Q8WX93 1xPhospho [S984]	PALLD S984	CAF_only	1.98	0.87	1.79	1.79
Q14683 1xPhospho [S360]	SMC1A S360	Cancer_only	1.40	1.93	1.79	0.40
Q9ULD5 1xPhospho [T717]	ZNF777 T717	Cancer_and_CAF	2.98	1.45	1.79	3.08
Q9NSC2 1xPhospho [T729]	SALL1 T729	Cancer_and_CAF	2.98	1.45	1.79	3.08
Q96RT1 1xPhospho [S1015]	ERBB2IP S1015	Cancer_only	1.50	1.40	1.79	0.48
Q8N8Z6 1xPhospho [S556]	DCBLD1 S556	CAF_only	1.60	0.29	1.79	1.72
Q9UBL0 1xPhospho [S33]	ARPP21 S33	CAF_only	1.70	0.81	1.78	1.45
Q9HCJ0 1xPhospho [S1011]	TNRC6C S1011	Cancer_only	2.33	2.39	1.78	0.91
P46013 1xPhospho [T1764]	MKI67 T1764	Cancer_only	3.90	1.53	1.77	0.46
A0JNW5 1xPhospho [S774]	UHRF1BP1L S774	CAF_only	2.26	0.91	1.77	1.94
Q8IWB9 1xPhospho [S222]	TEX2 S222	Cancer_only	2.59	1.31	1.77	0.65

Q8NEF9 1xPhospho [S367]	SRFBP1 S367	Cancer_only	2.76	2.06	1.76	0.86
Q9Y3B9 1xPhospho [T19]	RRP15 T19	CAF_only	1.89	0.98	1.76	1.32
Q00536 1xPhospho [S12]	CDK16 S12	CAF_only	3.91	0.79	1.76	1.43
Q13131 1xPhospho [S508]	PRKAA1 S508	Cancer_only	2.15	1.45	1.76	1.25
Q8WWI1 1xPhospho [S1493]	LMO7 S1493	Cancer_only	2.17	1.48	1.75	0.89
Q9Y343 1xPhospho [S116]	SNX24 S116	Cancer_only	2.59	1.52	1.75	0.64
Q9UDY2 2xPhospho [S986;S]	TJP2 S986;S	Cancer_only	3.22	2.23	1.75	0.72
Q16600 1xPhospho [T202]	ZNF239 T202	Cancer_only	2.61	2.04	1.74	1.22
Q04656 1xPhospho [S1463]	ATP7A S1463	Cancer_only	1.29	1.74	1.73	0.69
Q70CQ2 1xPhospho [S3439]	USP34 S3439	Cancer_and_CAF	1.55	2.59	1.73	1.77
Q5VUB5 1xPhospho [S479]	FAM171A1 S479	CAF_only	1.59	0.33	1.72	1.31
Q86WR7 1xPhospho [S31]	PROSER2 S31	CAF_only	2.52	1.25	1.72	1.89
O43765 1xPhospho [T303]	SGTA T303	Cancer_only	2.89	1.52	1.72	0.64
Q9NV56 [186-200]	MRGBP 186-200	CAF_only	2.09	1.30	1.71	1.72
Q15276 1xPhospho [S407]	RABEP1 S407	CAF_only	1.26	0.48	1.71	1.32
Q969E4 1xPhospho [S125]	TCEAL3 S125	CAF_only	3.15	1.10	1.71	2.02
Q6WCQ1 1xPhospho [S301]	MPRIP S301	CAF_only	-0.64	1.23	1.71	1.44
O43432 1xPhospho [S1156]	EIF4G3 S1156	Cancer_only	1.36	1.47	1.70	0.49
Q04828 1xPhospho [S290]	AKR1C1 S290	Cancer_only	2.21	1.41	1.70	0.68
Q8TB72 1xPhospho [S587]	PUM2 S587	Cancer_only	-1.08	2.13	1.69	0.48
Q9BUA3 1xPhospho [S292]	C11orf84 S292	CAF_only	0.15	0.08	1.69	2.00
Q6DN90 1xPhospho [S180]	IQSEC1 S180	CAF_only	3.69	0.72	1.69	1.32
Q9Y6G9 1xPhospho [S398]	DYNC1LI1 S398	CAF_only	2.44	1.01	1.69	1.47

A0JNW5 1xPhospho [S989]	UHRF1BP1L S989	Cancer_only	3.17	2.16	1.68	0.73
P20020 1xPhospho [S17]	ATP2B1 S17	CAF_only	0.68	1.04	1.67	1.62
Q86VX9 1xPhospho [S107]	MON1A S107	Cancer_only	1.54	1.31	1.67	0.42
Q66GS9 1xPhospho [S356]	CEP135 S356	CAF_only	0.68	0.31	1.67	1.59
O43303 1xPhospho [S551]	CCP110 S551	CAF_only	0.08	0.71	1.67	1.68
Q9HAW4 1xPhospho [S950]	CLSPN S950	CAF_only	-0.75	0.35	1.67	1.62
O60333 1xPhospho [S1645]	KIF1B S1645	CAF_only	0.30	0.08	1.67	1.40
Q13451 1xPhospho [S445]	FKBP5 S445	Cancer_only	2.81	1.73	1.66	1.00
P14316 1xPhospho [S148]	IRF2 S148	CAF_only	0.47	0.23	1.66	1.32
Q86VQ1 1xPhospho [S108]	GLCCI1 S108	Cancer_only	1.20	1.53	1.64	1.23
P49736 2xPhospho [S27;S/T]	MCM2 S27;S/T	Cancer_only	1.25	2.30	1.64	0.83
Q96RY5 1xPhospho [S1268]	CRAMP1L S1268	CAF_only	-0.06	0.02	1.64	1.36
Q6NWY9 1xPhospho [S852]	PRPF40B S852	CAF_only	0.65	1.54	1.64	1.93
P58546 1xPhospho [T31]	MTPN T31	CAF_only	2.17	0.73	1.63	1.86
Q14126 1xPhospho [S703]	DSG2 S703	Cancer_only	3.89	2.72	1.63	0.76
Q5T1R4 [1495-1510]	HIVEP3 1495-1510	CAF_only	-0.25	0.43	1.63	1.49
Q8NC51 1xPhospho [S25]	SERBP1 S25	Cancer_only	2.41	1.36	1.62	0.70
Q86WC4 2xPhospho [S322;T324]	OSTM1 S322;T324	CAF_only	0.76	0.42	1.62	1.90
O95235 1xPhospho [S256]	KIF20A S256	Cancer_only	3.18	1.32	1.62	0.71
P48634 1xPhospho [S456]	PRRC2A S456	CAF_only	-0.85	0.73	1.62	1.30
O94967 1xPhospho [S359]	WDR47 S359	CAF_only	1.44	0.53	1.61	1.45
Q76N32 2xPhospho [S472;S478]	CEP68 S472;S478	CAF_only	1.32	0.76	1.61	1.30
Q13555 1xPhospho [S384]	CAMK2G S384	Cancer_and_CAF	1.76	1.62	1.61	1.87

P46937 1xPhospho [S164]	YAP1 S164	Cancer_only	1.94	1.33	1.60	1.01
Q13009 1xPhospho [S231]	TIAM1 S231	CAF_only	-0.04	0.12	1.60	3.16
Q9P227 2xPhospho [S361;S372]	ARHGAP23 S361;S372	CAF_only	-0.12	0.06	1.59	1.80
Q14126 1xPhospho [S680]	DSG2 S680	CAF_only	0.93	0.39	1.58	2.19
Q9Y5P4 [117-129]	COL4A3BP 117-129	CAF_only	0.37	1.41	1.58	1.42
P27816 [923-933]	MAP4 923-933	CAF_only	1.38	1.02	1.58	1.77
Q9BW71 1xPhospho [S102]	HIRIP3 S102	CAF_only	1.01	0.70	1.58	2.05
Q08752 2xPhospho [S198;S201]	PPID S198;S201	Cancer_only	1.21	1.54	1.57	0.81
P20810 1xPhospho [S373]	CAST S373	Cancer_only	1.59	1.40	1.57	0.49
Q96N67 1xPhospho [S1438]	DOCK7 S1438	Cancer_only	1.45	1.50	1.56	0.59
Q12982 1xPhospho [S114]	BNIP2 S114	CAF_only	1.44	1.04	1.56	1.90
Q02078 [475-498]	MEF2A 475-498	CAF_only	2.06	0.84	1.56	1.99
O95819 1xPhospho [S845]	MAP4K4 S845	Cancer_only	1.21	1.30	1.55	1.25
Q14247 1xPhospho [S11]	CTTN S11	CAF_only	0.39	0.15	1.55	1.80
Q15032 1xPhospho [S973]	R3HDM1 S973	CAF_only	0.41	0.14	1.54	1.62
Q8IUD2 1xPhospho [S37]	ERC1 S37	CAF_only	2.47	0.92	1.54	1.57
Q8NG08 1xPhospho [S967]	HELB S967	CAF_only	0.87	0.46	1.54	1.92
ENST00000237536_NCI-H1792_Mis:S1543L 1xPhospho [S1164]	SOGA1 S1164	CAF_only	2.25	0.91	1.53	1.40
O94964 1xPhospho [S926]	SOGA1 S926	CAF_only	2.25	0.91	1.53	1.40
Q96T58 1xPhospho [S1252]	SPEN S1252	CAF_only	-0.36	0.08	1.52	2.06
P34910 1xPhospho [S263]	EVI2B S263	Cancer_only	3.18	1.36	1.52	0.83
Q8N4S0 1xPhospho [S219]	CCDC82 S219	Cancer_only	1.07	1.92	1.52	0.68

Q6DN90 1xPhospho [S105]	IQSEC1 S105	CAF_only	1.70	0.72	1.51	1.81
O43166 1xPhospho [S1116]	SIPA1L1 S1116	CAF_only	0.42	0.88	1.51	1.50
Q9BW71 2xPhospho [S159;S160]	HIRIP3 S159;S160	Cancer_only	1.74	1.43	1.51	0.31
Q6PL18 [407-424]	ATAD2 407-424	Cancer_only	-2.53	1.48	1.51	0.63
Q9UID3 1xPhospho [S652]	VPS51 S652	CAF_only	2.46	0.78	1.51	2.44
P12956 1xPhospho [S477]	XRCC6 S477	Cancer_only	1.04	1.44	1.51	1.05
O60927 2xPhospho [T75;S77]	PPP1R11 T75;S77	CAF_only	0.08	2.23	1.50	1.69
Q02790 1xPhospho [S451]	FKBP4 S451	CAF_only	1.48	0.50	1.50	1.47
O95671 1xPhospho [S239]	ASMTL S239	CAF_only	1.65	0.74	1.50	1.42
Q9Y3Z3 1xPhospho [S6]	SAMHD1 S6	Cancer_only	1.13	1.42	1.50	0.62
Q9BYI3 1xPhospho [S321]	FAM126A S321	Cancer_only	1.47	1.97	1.49	0.58
P28290 2xPhospho [S641;S644]	SSFA2 S641;S644	CAF_only	-0.18	0.10	1.49	2.24
Q9P1Y6 2xPhospho [S936;S948]	PHRF1 S936;S948	CAF_only	-1.17	0.33	1.49	1.35
Q12888 [313-348]	TP53BP1 313-348	CAF_only	0.80	0.76	1.48	1.33
P12694 2xPhospho [S337;T/S/Y]	BCKDHA S337;T/S/Y	Cancer_only	3.69	1.69	1.48	0.62
Q08170 [106-114]	SRSF4 106-114	Cancer_only	-2.78	2.09	1.48	0.21
Q13243 [110-118]	SRSF5 110-118	Cancer_only	-2.78	2.09	1.48	0.21
Q13247 [112-120]	SRSF6 112-120	Cancer_only	-2.78	2.09	1.48	0.21
Q32MZ4 [707-719]	LRRFIP1 707-719	Cancer_and_CAF	1.70	1.74	1.48	1.73
O75131 1xPhospho [S90]	CPNE3 S90	CAF_only	-1.37	0.43	1.47	2.20
Q96RL1 1xPhospho [S101]	UIMC1 S101	Cancer_only	1.22	1.33	1.47	0.83
P38398 2xPhospho [S1497;S1503]	BRCA1 S1497;S1503	CAF_only	0.32	0.14	1.46	1.41
Q9HAJ7 [91-120]	SAP30L 91-120	Cancer_and_CAF	1.89	1.68	1.45	2.00

ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S2260]	MAP1A S2260	CAF_only	1.46	0.64	1.45	2.18
P78559 1xPhospho [S2022]	MAP1A S2022	CAF_only	1.46	0.64	1.45	2.18
P08651 1xPhospho [S273]	NFIC S273	Cancer_only	1.05	2.90	1.45	0.80
Q9NSY0 1xPhospho [S22]	NRBP2 S22	CAF_only	3.68	1.01	1.45	1.39
Q86YR5 1xPhospho [S492]	GPSM1 S492	Cancer_only	2.80	1.46	1.45	0.82
Q9Y678 1xPhospho [T594]	COPG1 T594	Cancer_only	2.90	1.87	1.45	0.94
P62195 1xPhospho [T122]	PSMC5 T122	CAF_only	0.81	0.36	1.45	1.63
Q96JM3 2xPhospho [S476;S]	CHAMP1 S476;S	Cancer_only	1.45	2.96	1.45	0.49
Q9UF83 1xPhospho [T375]	DKFZp434B061 T375	CAF_only	-0.13	0.03	1.44	2.96
Q9Y6G9 1xPhospho [S487]	DYNC1LI1 S487	Cancer_only	3.36	1.47	1.44	0.70
Q7Z401 1xPhospho [S1225]	DENND4A S1225	CAF_only	0.51	0.27	1.44	1.63
Q13177 1xPhospho [T169]	PAK2 T169	CAF_only	4.03	1.28	1.43	1.50
Q09666 1xPhospho [S572]	AHNAK S572	Cancer_only	-2.28	1.81	1.43	0.52
P50552 1xPhospho [S322]	VASP S322	Cancer_and_CAF	2.22	1.56	1.43	1.33
Q5VTR2 2xPhospho [S136;S138]	RNF20 S136;S138	Cancer_only	1.65	1.47	1.42	0.53
Q9BYV8 1xPhospho [S99]	CEP41 S99	Cancer_only	1.21	2.98	1.42	0.56
Q5T6F2 1xPhospho [S254]	UBAP2 S254	Cancer_only	1.08	1.42	1.42	0.64
Q9NV79 1xPhospho [S306]	PCMTD2 S306	CAF_only	0.78	0.29	1.42	1.52
Q86VX9 [105-125]	MON1A 105-125	CAF_only	-0.53	0.38	1.42	1.40
O60488 1xPhospho [S674]	ACSL4 S674	CAF_only	0.49	0.16	1.42	2.27
Q92734 [119-147]	TFG 119-147	Cancer_only	2.79	1.67	1.41	0.52
P02686 1xPhospho [S40]	MBP S40	Cancer_only	2.47	1.31	1.41	0.78

Q9P1Z2 2xPhospho [T537;S539]	CALCOCO1 T537;S539	Cancer_only	1.40	1.68	1.41	0.36
Q96HE9 1xPhospho [T353]	PRR11 T353	CAF_only	0.76	0.60	1.41	1.50
P49711 1xPhospho [T518]	CTCF T518	CAF_only	1.98	0.85	1.40	1.70
Q6P6C2 2xPhospho [S371;S384]	ALKBH5 S371;S384	Cancer_only	3.58	1.35	1.40	0.69
Q3B726 1xPhospho [S304]	TWISTNB S304	CAF_only	0.86	0.49	1.39	1.85
P61981 1xPhospho [S71]	YWHAG S71	Cancer_only	2.36	1.51	1.39	0.64
Q99698 1xPhospho [S2264]	LYST S2264	Cancer_only	-1.30	1.33	1.39	0.24
Q7Z3T8 1xPhospho [S79]	ZFYVE16 S79	Cancer_only	1.46	1.31	1.38	0.94
P04406 1xPhospho [T211]	GAPDH T211	Cancer_only	1.83	2.29	1.37	0.89
Q8N6T3 1xPhospho [S361]	ARFGAP1 S361	CAF_only	0.15	1.26	1.37	1.34
Q15233 1xPhospho [T428]	NONO T428	Cancer_only	-1.62	1.71	1.37	0.51
Q13085 1xPhospho [S25]	ACACA S25	CAF_only	0.74	1.90	1.36	1.39
P38159 1xPhospho [S58]	RBMX S58	CAF_only	-0.10	0.99	1.36	2.13
Q96E39 1xPhospho [S58]	RBMXL1 S58	CAF_only	-0.10	0.99	1.36	2.13
P31629 1xPhospho [S314]	HIVEP2 S314	CAF_only	0.76	0.50	1.36	1.36
Q66PJ3 1xPhospho [S332]	ARL6IP4 S332	CAF_only	1.67	0.58	1.36	1.56
Q9H1Z4 1xPhospho [S79]	WDR13 S79	CAF_only	1.92	0.84	1.36	1.91
O75569 1xPhospho [S18]	PRKRA S18	Cancer_only	1.79	1.40	1.36	1.22
Q9UKT7 1xPhospho [S13]	FBXL3 S13	Cancer_only	1.83	1.97	1.35	0.86
Q9H6Z4 1xPhospho [S358]	RANBP3 S358	Cancer_only	1.29	1.62	1.35	0.91
P07197 1xPhospho [S672]	NEFM S672	CAF_only	0.54	1.15	1.35	1.57
Q15032 1xPhospho [S282]	R3HDM1 S282	CAF_only	1.03	0.78	1.35	1.56
Q9UBL0 1xPhospho [S280]	ARPP21 S280	CAF_only	1.03	0.78	1.35	1.56

Q9H910 1xPhospho [S97]	HN1L S97	Cancer_only	2.80	1.54	1.35	0.74
Q6ZRI6 2xPhospho [S496;S497]	C15orf39 S496;S497	Cancer_only	2.10	1.58	1.35	0.52
Q9UEW8 1xPhospho [S385]	STK39 S385	Cancer_only	2.20	1.42	1.35	0.98
Q9P1T7 2xPhospho [S140;S143]	MDFIC S140;S143	CAF_only	0.10	0.10	1.34	1.40
Q96K21 1xPhospho [S354]	ZFYVE19 S354	Cancer_only	2.09	1.81	1.34	0.62
Q86UU0 1xPhospho [S1480]	BCL9L S1480	CAF_only	2.46	0.63	1.33	2.41
Q8TDM6 1xPhospho [S1666]	DLG5 S1666	CAF_only	-0.94	0.77	1.33	1.52
Q01082 2xPhospho [S2161;S2165]	SPTBN1 S2161;S2165	CAF_only	-0.49	0.76	1.33	1.51
Q32MZ4 1xPhospho [S555]	LRRFIP1 S555	Cancer_and_CAF	3.82	1.41	1.33	1.36
Q9H1E3 1xPhospho [S54]	NUCKS1 S54	CAF_only	2.35	1.21	1.33	1.50
Q5JU85 1xPhospho [S393]	IQSEC2 S393	Cancer_only	2.43	2.46	1.33	0.77
Q86YS7 1xPhospho [S659]	C2CD5 S659	Cancer_and_CAF	2.30	1.31	1.33	3.19
Q9BZQ8 1xPhospho [S611]	FAM129A S611	CAF_only	1.35	1.03	1.32	1.56
Q05209 1xPhospho [S435]	PTPN12 S435	CAF_only	2.14	1.12	1.32	1.78
Q6IN85 1xPhospho [S777]	SMEK1 S777	Cancer_only	1.15	2.85	1.32	0.39
Q9NQW6 1xPhospho [S658]	ANLN S658	CAF_only	0.42	0.80	1.32	1.61
Q9H7N4 1xPhospho [S389]	SCAF1 S389	CAF_only	-0.47	0.17	1.31	1.74
P51858 [181-208]	HDGF 181-208	CAF_only	1.70	1.08	1.31	1.70
P18846 1xPhospho [S72]	ATF1 S72	Cancer_only	1.36	2.00	1.31	0.28
Q9UHB6 2xPhospho [S371;S]	LIMA1 S371;S	Cancer_only	1.34	1.57	1.31	0.97
Q9Y6Y0 1xPhospho [S338]	IVNS1ABP S338	CAF_only	0.79	1.27	1.30	1.36
P49815 [1385-1404]	TSC2 1385-1404	CAF_only	-0.01	0.05	1.30	1.75
Q96CB8 1xPhospho [S378]	INTS12 S378	CAF_only	1.51	0.53	1.30	1.49

Q9UF83 1xPhospho [S287]	DKFZp434B061 S287	CAF_only	3.85	0.63	1.30	2.26
P12268 1xPhospho [S122]	IMPDH2 S122	Cancer_only	2.20	1.36	1.29	0.50
Q15149 2xPhospho [S4672;S4675]	PLEC S4672;S4675	CAF_only	-0.34	0.14	1.29	1.67
Q15648 2xPhospho [T1051;T1057]	MED1 T1051;T1057	CAF_only	1.10	0.57	1.29	1.45
Q66K14 1xPhospho [S435]	TBC1D9B S435	Cancer_only	2.22	1.86	1.29	0.42
P04792 1xPhospho [S199]	HSPB1 S199	CAF_only	2.54	1.15	1.29	1.48
O15021 1xPhospho [S2552]	MAST4 S2552	CAF_only	0.25	0.84	1.29	1.36
Q641Q2 [330-345]	FAM21A 330-345	Cancer_only	1.13	1.58	1.28	0.56
Q9Y4E1 [330-345]	FAM21C 330-345	Cancer_only	1.13	1.58	1.28	0.56
Q6ZQN7 1xPhospho [S79]	SLCO4C1 S79	CAF_only	1.45	0.55	1.28	1.49
Q13136 1xPhospho [T324]	PPFIA1 T324	CAF_only	-0.41	0.44	1.28	3.56
Q13433 2xPhospho [S475;S/T/Y]	SLC39A6 S475;S/T/Y	CAF_only	1.59	0.88	1.28	1.34
Q9Y2K2 1xPhospho [S866]	SIK3 S866	CAF_only	2.77	0.72	1.28	1.62
P46937 1xPhospho [S61]	YAP1 S61	CAF_only	1.79	0.92	1.28	1.80
O43566 1xPhospho [S288]	RGS14 S288	Cancer_only	-2.32	1.66	1.28	0.56
P35659 [209-215]	DEK 209-215	CAF_only	1.90	0.88	1.28	2.10
P10244 1xPhospho [S241]	MYBL2 S241	CAF_only	-0.19	0.12	1.28	1.50
Q8N6T3 2xPhospho [T135;S]	ARFGAP1 T135;S	CAF_only	1.71	0.47	1.28	2.64
P16152 1xPhospho [S151]	CBR1 S151	Cancer_only	2.00	1.32	1.27	1.29
Q14684 [443-471]	RRP1B 443-471	Cancer_only	1.89	1.97	1.27	0.37
Q08499 1xPhospho [S773]	PDE4D S773	CAF_only	0.68	0.54	1.27	2.09
Q92733 1xPhospho [S212]	PRCC S212	CAF_only	0.57	0.26	1.27	1.31
Q86W92 1xPhospho [S434]	PPFIBP1 S434	CAF_only	1.39	0.64	1.26	1.63

O60841 1xPhospho [T301]	EIF5B T301	Cancer_only	1.05	1.49	1.26	0.43
O43149 1xPhospho [T66]	ZZEF1 T66	CAF_only	0.06	0.03	1.26	1.50
Q9NXR1 1xPhospho [S309]	NDE1 S309	Cancer_only	-2.56	1.40	1.26	0.35
Q8NCF5 [146-176]	NFATC2IP 146-176	CAF_only	1.07	0.82	1.25	1.34
P23588 1xPhospho [S597]	EIF4B S597	CAF_only	1.03	0.81	1.25	1.31
Q14157 1xPhospho [S116]	UBAP2L S116	Cancer_only	1.79	1.53	1.24	0.87
O95394 1xPhospho [S64]	PGM3 S64	CAF_only	1.76	0.77	1.24	2.57
Q86WB0 2xPhospho [T387;S/T]	ZC3HC1 T387;S/T	CAF_only	1.93	0.37	1.24	1.57
Q6ICG6 1xPhospho [S351]	KIAA0930 S351	CAF_only	1.94	0.49	1.24	1.55
Q66K74 1xPhospho [S472]	MAP1S S472	Cancer_only	3.92	2.86	1.24	0.59
P42166 2xPhospho [Y183;S184]	TMPO Y183;S184	CAF_only	2.03	0.94	1.23	1.52
Q01804 1xPhospho [S341]	OTUD4 S341	CAF_only	0.70	0.32	1.23	1.34
Q9Y2W1 1xPhospho [T205]	THRAP3 T205	CAF_only	0.97	0.38	1.23	1.48
O60573 1xPhospho [S13]	EIF4E2 S13	Cancer_only	1.81	1.63	1.23	0.40
Q8IY33 1xPhospho [S125]	MICALL2 S125	CAF_only	1.91	0.88	1.23	2.37
Q92994 2xPhospho [S450;S]	BRF1 S450;S	CAF_only	1.50	0.73	1.22	2.47
Q9Y2Z0 1xPhospho [T265]	SUGT1 T265	Cancer_only	1.82	1.42	1.22	0.70
P13521 1xPhospho [S555]	SCG2 S555	Cancer_only	3.21	1.55	1.22	1.15
Q12893 1xPhospho [S267]	TMEM115 S267	Cancer_only	1.01	1.33	1.21	0.97
Q9UKV3 1xPhospho [S815]	ACIN1 S815	Cancer_only	1.11	1.84	1.21	0.52
Q7Z401 [1092-1114]	DENND4A 1092-1114	Cancer_only	1.06	2.35	1.21	1.07
Q8N3V7 1xPhospho [S548]	SYNPO S548	Cancer_only	1.15	1.37	1.21	0.49
Q9ULV3 1xPhospho [T645]	CIZ1 T645	CAF_only	1.33	0.96	1.21	2.06

Q03393 1xPhospho [S19]	PTS S19	CAF_only	1.22	0.56	1.20	1.49
Q13085 2xPhospho [S23;S29]	ACACA S23;S29	CAF_only	0.53	0.28	1.20	1.98
Q8IXT5 1xPhospho [S254]	RBM12B S254	Cancer_only	1.29	1.42	1.20	0.98
O00512 1xPhospho [S102]	BCL9 S102	CAF_only	-0.01	0.02	1.20	1.47
Q13615 1xPhospho [S903]	MTMR3 S903	CAF_only	-0.30	0.76	1.20	1.66
Q9H2G2 1xPhospho [S189]	SLK S189	Cancer_only	1.41	1.85	1.19	0.80
Q8IVF2 1xPhospho [S375]	AHNAK2 S375	CAF_only	0.71	0.45	1.19	1.61
O94992 2xPhospho [S97;S98]	HEXIM1 S97;S98	Cancer_only	1.21	2.09	1.19	0.39
Q9NQP4 1xPhospho [S125]	PFDN4 S125	Cancer_and_CAF	1.39	1.73	1.19	1.60
Q8TE77 1xPhospho [S649]	SSH3 S649	CAF_only	2.55	0.95	1.19	1.55
Q8N108 2xPhospho [S369;S372]	MIER1 S369;S372	Cancer_only	1.50	1.81	1.19	1.16
O15061 1xPhospho [S1504]	SYNM S1504	Cancer_only	2.15	2.21	1.19	0.28
Q14155 1xPhospho [S703]	ARHGEF7 S703	Cancer_only	1.10	1.46	1.18	0.50
Q15052 1xPhospho [S649]	ARHGEF6 S649	Cancer_only	1.10	1.46	1.18	0.50
Q71F23 2xPhospho [T110;S]	CENPU T110;S	Cancer_only	1.45	1.76	1.18	1.10
Q96IZ0 1xPhospho [S108]	PAWR S108	Cancer_only	1.03	1.43	1.18	1.19
Q8NB15 [185-221]	ZNF511 185-221	CAF_only	2.30	1.07	1.18	1.76
Q5SW79 1xPhospho [T644]	CEP170 T644	Cancer_only	-1.41	1.45	1.18	0.42
P35568 1xPhospho [S270]	IRS1 S270	CAF_only	-0.06	0.07	1.18	1.35
Q9Y4C1 1xPhospho [S445]	KDM3A S445	CAF_only	0.89	1.33	1.17	1.89
O43684 1xPhospho [S325]	BUB3 S325	Cancer_only	1.69	1.45	1.17	0.53
P35237 1xPhospho [S151]	SERPINB6 S151	Cancer_only	1.56	1.48	1.17	0.68
Q96G01 1xPhospho [S548]	BICD1 S548	CAF_only	0.40	0.15	1.17	1.60

O15127 1xPhospho [S319]	SCAMP2 S319	CAF_only	2.21	1.03	1.17	2.23
Q08752 1xPhospho [S198]	PPID S198	Cancer_and_CAF	2.21	2.01	1.17	1.31
Q8IZL8 2xPhospho [S1043;T1069]	PELP1 S1043;T1069	CAF_only	-0.13	0.06	1.17	1.31
P42166 2xPhospho [S156;S159]	TMPO S156;S159	Cancer_only	1.60	1.59	1.17	0.82
P42167 2xPhospho [S156;S159]	TMPO S156;S159	Cancer_only	1.60	1.59	1.17	0.82
Q9UEG4 1xPhospho [S625]	ZNF629 S625	CAF_only	0.69	0.35	1.16	1.36
Q1ED39 2xPhospho [S234;S237]	KNOP1 S234;S237	CAF_only	1.03	0.59	1.16	1.64
P18084 1xPhospho [S770]	ITGB5 S770	Cancer_only	-1.13	1.94	1.16	0.29
Q96B97 [458-475]	SH3KBP1 458-475	Cancer_only	3.60	1.86	1.16	1.15
O14617 1xPhospho [S658]	AP3D1 S658	CAF_only	1.25	0.47	1.16	1.99
O94804 1xPhospho [T952]	STK10 T952	Cancer_only	2.31	1.40	1.16	0.77
O43741 1xPhospho [S39]	PRKAB2 S39	CAF_only	1.04	0.33	1.16	1.37
Q8IUD2 [34-52]	ERC1 34-52	CAF_only	1.66	1.24	1.16	3.08
P12268 1xPhospho [S416]	IMPDH2 S416	Cancer_only	1.74	2.64	1.15	0.58
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S905]	MAP1A S905	Cancer_only	1.28	2.41	1.15	0.55
P78559 1xPhospho [S667]	MAP1A S667	Cancer_only	1.28	2.41	1.15	0.55
P31629 1xPhospho [S1085]	HIVEP2 S1085	Cancer_only	2.51	1.60	1.15	0.50
P49368 1xPhospho [S252]	CCT3 S252	Cancer_only	2.35	1.59	1.15	0.51
Q9Y2L9 1xPhospho [T568]	LRCH1 T568	CAF_only	0.28	0.51	1.15	1.50
Q5VZK9 1xPhospho [S880]	LRRC16A S880	CAF_only	2.17	0.56	1.14	2.07
O00186 1xPhospho [S512]	STXBP3 S512	CAF_only	0.74	0.61	1.14	1.36
P22102 1xPhospho [S802]	GART S802	CAF_only	0.97	2.13	1.14	1.76

O14974 2xPhospho [S862;S871]	PPP1R12A S862;S871	Cancer_only	1.53	2.38	1.14	0.47
Q96N67 1xPhospho [S929]	DOCK7 S929	CAF_only	1.48	0.62	1.14	3.97
P21291 1xPhospho [S192]	CSRP1 S192	Cancer_and_CAF	1.79	1.40	1.14	2.01
O75569 1xPhospho [S167]	PRKRA S167	Cancer_only	1.41	1.41	1.13	0.34
Q6P0Q8 1xPhospho [S1035]	MAST2 S1035	Cancer_only	5.26	2.36	1.13	0.26
Q13442 2xPhospho [S60;S63]	PDAP1 S60;S63	Cancer_only	2.05	1.35	1.13	0.55
Q8TED9 1xPhospho [S603]	AFAP1L1 S603	CAF_only	-2.06	0.56	1.13	1.39
Q96NE9 1xPhospho [S544]	FRMD6 S544	Cancer_only	2.48	1.80	1.13	0.22
O95747 1xPhospho [S427]	OXSR1 S427	CAF_only	1.99	1.04	1.13	2.48
P20042 1xPhospho [S67]	EIF2S2 S67	Cancer_and_CAF	2.14	1.35	1.12	1.36
Q5H9R7 1xPhospho [S617]	PPP6R3 S617	CAF_only	1.01	1.16	1.12	1.54
Q9NQS1 1xPhospho [S94]	AVEN S94	CAF_only	1.29	0.75	1.12	1.32
Q5T200 2xPhospho [S238;S242]	ZC3H13 S238;S242	CAF_only	0.58	0.65	1.12	1.89
Q96CW6 2xPhospho [S302;S308]	SLC7A6OS S302;S308	CAF_only	0.73	0.25	1.11	1.42
Q9Y6M4 1xPhospho [S345]	CSNK1G3 S345	CAF_only	-0.21	0.49	1.11	1.41
P46821 1xPhospho [S1265]	MAP1B S1265	Cancer_only	1.94	1.44	1.11	0.71
Q9NRY4 1xPhospho [S1001]	ARHGAP35 S1001	Cancer_and_CAF	2.16	1.60	1.11	1.86
Q9UN37 2xPhospho [S97;S99]	VPS4A S97;S99	Cancer_and_CAF	2.00	1.70	1.11	1.90
Q9H583 1xPhospho [S1190]	HEATR1 S1190	CAF_only	0.62	0.98	1.11	1.41
O95149 1xPhospho [S75]	SNUPN S75	Cancer_and_CAF	2.96	1.41	1.11	1.33
Q9Y608 1xPhospho [S320]	LRRFIP2 S320	Cancer_only	1.20	1.55	1.11	1.10
Q9UHB7 1xPhospho [T528]	AFF4 T528	CAF_only	-1.27	1.15	1.11	1.90
P46821 1xPhospho [S561]	MAP1B S561	Cancer_and_CAF	2.01	1.43	1.11	1.39

Q9P0V9 1xPhospho [S28]	SEPTIN10 S28	Cancer_only	1.79	1.36	1.11	0.86
P0CAP2 1xPhospho [S364]	POLR2M S364	Cancer_only	2.79	1.58	1.11	0.73
P35580 2xPhospho [S1952;S1956]	MYH10 S1952;S1956	Cancer_only	1.95	1.56	1.10	0.86
Q96K76 1xPhospho [T1015]	USP47 T1015	CAF_only	-0.59	0.82	1.10	1.35
P67936 1xPhospho [T216]	TPM4 T216	CAF_only	1.28	1.02	1.09	1.55
P52209 1xPhospho [S291]	PGD S291	Cancer_and_CAF	2.24	1.63	1.09	1.40
Q9UBH6 1xPhospho [S676]	XPR1 S676	Cancer_only	1.40	1.47	1.09	1.28
P46379 2xPhospho [S964;S973]	BAG6 S964;S973	Cancer_only	1.69	1.33	1.08	0.31
Q96NE9 1xPhospho [S525]	FRMD6 S525	Cancer_only	1.40	1.87	1.08	0.93
Q9H2G2 2xPhospho [S565;S571]	SLK S565;S571	CAF_only	3.19	0.80	1.07	1.61
Q9NZ71 1xPhospho [S847]	RTEL1 S847	CAF_only	0.22	0.06	1.07	1.44
Q9UDY2 1xPhospho [S244]	TJP2 S244	Cancer_only	1.04	2.86	1.07	0.75
Q12802 1xPhospho [S1647]	AKAP13 S1647	CAF_only	1.60	0.67	1.07	1.75
Q96K76 1xPhospho [S944]	USP47 S944	Cancer_only	1.02	1.61	1.07	0.44
Q05209 2xPhospho [S689;T693]	PTPN12 S689;T693	CAF_only	1.94	0.79	1.07	1.89
P14618 1xPhospho [S202]	PKM S202	Cancer_only	1.96	1.39	1.07	0.98
O60232 1xPhospho [S78]	SSSCA1 S78	CAF_only	1.73	1.29	1.06	1.31
Q9UKV3 1xPhospho [S838]	ACIN1 S838	Cancer_and_CAF	1.12	1.78	1.06	1.54
P41743 [402-426]	PRKCI 402-426	CAF_only	1.19	0.63	1.06	1.64
P07741 1xPhospho [S30]	APRT S30	Cancer_only	2.49	1.92	1.05	0.50
Q53GS9 2xPhospho [S46;S]	USP39 S46;S	CAF_only	0.73	0.23	1.05	1.91
Q9BZI7 1xPhospho [S325]	UPF3B S325	Cancer_only	2.13	1.43	1.05	0.37
Q13263 [805-835]	TRIM28 805-835	CAF_only	0.59	0.23	1.05	1.68

Q9UKY7 1xPhospho [S107]	CDV3 S107	Cancer_only	2.21	1.43	1.05	0.60
Q9UKD2 [215-239]	MRTO4 215-239	Cancer_only	1.95	1.88	1.05	0.50
Q32MZ4 1xPhospho [S686]	LRRFIP1 S686	CAF_only	1.24	0.92	1.04	1.89
P22314 1xPhospho [S46]	UBA1 S46	Cancer_only	2.35	2.05	1.04	1.28
Q9H1E3 1xPhospho [S61]	NUCKS1 S61	Cancer_and_CAF	2.24	1.93	1.04	1.49
Q9BWT3 2xPhospho [S635;T]	PAPOLG S635;T	Cancer_and_CAF	2.65	1.55	1.04	1.32
P50851 1xPhospho [S1767]	LRBA S1767	CAF_only	-0.44	1.03	1.04	1.75
Q9UHB6 1xPhospho [S726]	LIMA1 S726	CAF_only	0.90	0.35	1.04	2.49
Q12888 2xPhospho [S625;S630]	TP53BP1 S625;S630	CAF_only	0.61	0.21	1.03	2.32
A7KAX9 1xPhospho [S682]	ARHGAP32 S682	Cancer_only	1.04	1.57	1.03	0.71
Q8IWZ3 1xPhospho [S1670]	ANKHD1 S1670	CAF_only	0.18	0.27	1.03	1.54
Q9Y2H5 1xPhospho [S867]	PLEKHA6 S867	CAF_only	0.32	0.23	1.03	1.68
Q32P41 1xPhospho [T494]	TRMT5 T494	Cancer_and_CAF	1.92	1.34	1.03	1.41
Q9NRA8 2xPhospho [T9;S11]	EIF4ENIF1 T9;S11	CAF_only	1.51	0.60	1.02	1.58
Q70EL1 1xPhospho [S481]	USP54 S481	Cancer_only	1.42	1.65	1.02	0.69
O43583 1xPhospho [T86]	DENR T86	CAF_only	1.56	0.88	1.02	1.50
Q9H1E3 1xPhospho [S223]	NUCKS1 S223	Cancer_and_CAF	3.33	1.34	1.02	1.82
O95425 1xPhospho [S707]	SVIL S707	Cancer_only	1.76	1.65	1.02	0.96
Q9NTZ6 1xPhospho [S352]	RBM12 S352	CAF_only	-0.16	0.09	1.02	1.33
Q96HC4 1xPhospho [S111]	PDLIM5 S111	Cancer_only	2.16	1.47	1.02	0.84
Q9H1E3 2xPhospho [S54;S]	NUCKS1 S54;S	CAF_only	3.41	1.21	1.02	1.69
O95685 2xPhospho [S25;S28]	PPP1R3D S25;S28	CAF_only	-0.14	0.20	1.02	2.83
Q9H4E7 1xPhospho [S597]	DEF6 S597	Cancer_only	1.58	1.68	1.02	0.86

P29317 1xPhospho [S153]	EPHA2 S153	CAF_only	-0.88	0.58	1.02	1.83
P02545 1xPhospho [S71]	LMNA S71	CAF_only	0.76	0.64	1.01	1.40
Q16555 1xPhospho [T509]	DPYSL2 T509	Cancer_only	2.05	1.46	1.01	0.72
Q06210 1xPhospho [S261]	GFPT1 S261	CAF_only	1.44	1.25	1.01	2.07
Q147X3 1xPhospho [S190]	NAA30 S190	Cancer_only	-1.25	1.37	1.01	1.04
Q99848 1xPhospho [S264]	EBNA1BP2 S264	Cancer_only	-2.01	1.69	1.01	0.57
O60271 1xPhospho [S332]	SPAG9 S332	Cancer_only	2.18	1.40	1.01	0.41
Q96PE2 1xPhospho [S420]	ARHGEF17 S420	CAF_only	1.36	0.66	1.00	2.29
Q66PJ3 1xPhospho [S239]	ARL6IP4 S239	Cancer_only	1.19	2.13	1.00	0.44
Q8IWE5 1xPhospho [S364]	PLEKHM2 S364	Cancer_only	1.20	1.57	1.00	0.87
Q4V328 1xPhospho [S704]	GRIPAP1 S704	Cancer_only	2.24	1.54	1.00	0.59
Q8WVE6 1xPhospho [S322]	TMEM171 S322	Cancer_only	-2.06	2.87	1.00	0.61
P51532 1xPhospho [S1417]	SMARCA4 S1417	Cancer_only	-2.23	1.54	1.00	0.26
P51965 [8-24]	UBE2E1 8-24	Cancer_only	1.70	2.09	0.99	1.30
Q15029 1xPhospho [T86]	EFTUD2 T86	Cancer_only	-1.28	1.68	0.99	0.58
A5YM69 1xPhospho [S184]	ARHGEF35 S184	Cancer_only	1.80	1.32	0.99	0.56
P46013 1xPhospho [T1355]	MKI67 T1355	Cancer_only	1.57	1.63	0.99	0.48
Q9UNL4 1xPhospho [S150]	ING4 S150	Cancer_only	1.90	1.34	0.99	0.64
P22314 1xPhospho [S1044]	UBA1 S1044	Cancer_only	1.45	1.61	0.99	0.47
P49902 1xPhospho [S511]	NT5C2 S511	Cancer_only	-1.08	2.73	0.98	0.46
P46821 1xPhospho [S1312]	MAP1B S1312	Cancer_only	2.11	1.57	0.97	0.81
O43314 1xPhospho [S38]	PPIP5K2 S38	Cancer_only	1.74	1.32	0.97	1.18
Q86V48 1xPhospho [S57]	LUZP1 S57	Cancer_only	1.35	3.56	0.97	0.75

P23634 1xPhospho [S1162]	ATP2B4 S1162	Cancer_only	1.06	1.35	0.97	0.47
O60551 [57-76]	NMT2 57-76	Cancer_only	2.28	1.65	0.96	0.56
Q92888 1xPhospho [S786]	ARHGEF1 S786	Cancer_only	1.13	1.57	0.96	1.51
Q96LA8 1xPhospho [T21]	PRMT6 T21	Cancer_only	2.24	2.78	0.96	0.63
P43487 1xPhospho [S188]	RANBP1 S188	Cancer_only	2.56	2.40	0.96	0.80
O00410 1xPhospho [S827]	IPO5 S827	Cancer_only	1.87	1.73	0.96	0.42
Q9UHX1 1xPhospho [T60]	PUF60 T60	Cancer_only	2.24	1.90	0.96	0.65
P34932 [406-422]	HSPA4 406-422	Cancer_only	1.24	1.62	0.96	0.39
P43487 1xPhospho [S60]	RANBP1 S60	Cancer_only	2.11	1.47	0.96	1.23
O75351 1xPhospho [S102]	VPS4B S102	Cancer_only	1.61	1.55	0.95	0.51
Q9H1E3 1xPhospho [S214]	NUCKS1 S214	Cancer_only	2.19	1.48	0.94	0.84
Q9ULV3 1xPhospho [T244]	CIZ1 T244	Cancer_only	3.10	1.63	0.93	0.43
Q6UB99 2xPhospho [T829;S834]	ANKRD11 T829;S834	Cancer_only	-1.05	2.64	0.93	0.27
Q9P2K8 1xPhospho [T667]	EIF2AK4 T667	Cancer_only	1.24	1.70	0.93	0.54
Q96EB6 [23-34]	SIRT1 23-34	Cancer_only	1.06	1.62	0.93	0.67
Q9H6Z4 2xPhospho [S566;T567]	RANBP3 S566;T567	Cancer_only	3.52	1.47	0.92	0.15
Q7Z309 2xPhospho [S115;S119]	FAM122B S115;S119	Cancer_only	1.78	1.67	0.92	0.59
O00499 1xPhospho [S296]	BIN1 S296	Cancer_only	1.70	1.33	0.92	0.39
Q13409 1xPhospho [S51]	DYNC1I2 S51	Cancer_only	2.24	2.77	0.92	0.87
P46821 1xPhospho [S1501]	MAP1B S1501	Cancer_only	1.36	1.68	0.91	1.76
Q7L8J4 1xPhospho [S30]	SH3BP5L S30	Cancer_only	2.28	1.31	0.91	0.39
Q9Y4B4 1xPhospho [T1260]	RAD54L2 T1260	Cancer_only	1.30	3.31	0.90	0.70
P08238 2xPhospho [S255;S261]	HSP90AB1 S255;S261	Cancer_only	1.62	2.16	0.90	0.44

P30291 1xPhospho [T190]	WEE1 T190	Cancer_only	4.80	1.54	0.90	0.14
O43598 1xPhospho [S169]	DNPH1 S169	Cancer_only	2.21	1.59	0.89	0.87
Q5JSH3 1xPhospho [S403]	WDR44 S403	Cancer_only	1.63	1.81	0.89	0.28
P41236 2xPhospho [S121;S122]	PPP1R2 S121;S122	Cancer_only	2.12	1.37	0.89	0.63
P51858 2xPhospho [S132;S133]	HDGF S132;S133	Cancer_only	2.14	1.62	0.89	0.58
O15541 1xPhospho [S329]	RNF113A S329	Cancer_only	1.33	1.47	0.89	0.44
O00178 2xPhospho [S44;S47]	GTPBP1 S44;S47	Cancer_only	1.11	1.56	0.89	0.76
Q9H1E3 1xPhospho [S58]	NUCKS1 S58	Cancer_only	1.95	1.47	0.89	1.34
O00203 1xPhospho [S276]	AP3B1 S276	Cancer_only	1.58	1.38	0.88	0.36
Q9H4A3 1xPhospho [S185]	WNK1 S185	Cancer_only	1.62	1.57	0.88	1.76
P52209 1xPhospho [S129]	PGD S129	Cancer_only	1.02	1.37	0.87	0.81
Q9Y4G8 1xPhospho [S1095]	RAPGEF2 S1095	Cancer_only	1.09	1.31	0.87	0.45
P04150 1xPhospho [T8]	NR3C1 T8	Cancer_only	2.10	1.48	0.87	0.82
P29558 1xPhospho [S112]	RBMS1 S112	Cancer_only	1.67	1.50	0.87	0.91
ENST00000382031_NCI-H1792_Mis:P2036S [343-363]	MAP1A 343-363	Cancer_only	1.90	1.49	0.86	0.36
P78559 [105-125]	MAP1A 105-125	Cancer_only	1.90	1.49	0.86	0.36
Q6ZRI6 1xPhospho [S586]	C15orf39 S586	Cancer_only	2.30	1.80	0.85	0.26
Q9Y3P9 1xPhospho [T996]	RABGAP1 T996	Cancer_only	1.68	2.11	0.85	0.56
Q9HC35 2xPhospho [T897;T899]	EML4 T897;T899	Cancer_only	1.15	1.80	0.85	0.29
Q8TE04 1xPhospho [S508]	PANK1 S508	Cancer_only	-1.64	1.87	0.84	0.24
P48681 1xPhospho [S931]	NES S931	Cancer_only	-1.50	1.42	0.84	0.19
Q8WVV9 1xPhospho [S68]	HNRNPLL S68	Cancer_only	1.96	1.32	0.83	1.25

Q9NXG2 2xPhospho [S86;S88]	THUMPD1 S86;S88	Cancer_only	1.47	1.38	0.83	0.43
P82094 1xPhospho [S328]	TMF1 S328	Cancer_only	1.43	2.17	0.83	0.17
Q14558 1xPhospho [S215]	PRPSAP1 S215	Cancer_only	1.42	1.53	0.83	0.58
Q96A65 1xPhospho [T237]	EXOC4 T237	Cancer_only	1.24	2.02	0.83	1.60
Q6IPR3 1xPhospho [S236]	TYW3 S236	Cancer_only	1.78	1.71	0.83	0.38
O95210 [209-222]	STBD1 209-222	Cancer_only	-1.18	1.37	0.83	0.42
P35579 1xPhospho [S1943]	MYH9 S1943	Cancer_only	2.06	1.33	0.83	0.62
P50552 1xPhospho [T284]	VASP T284	Cancer_only	2.60	1.59	0.82	0.91
O15085 1xPhospho [S1295]	ARHGEF11 S1295	Cancer_only	1.50	1.65	0.82	0.32
Q14C86 1xPhospho [S966]	GAPVD1 S966	Cancer_only	1.80	1.33	0.81	0.64
Q9C0C2 1xPhospho [S882]	TNKS1BP1 S882	Cancer_only	1.51	1.69	0.81	0.34
O43432 1xPhospho [S1409]	EIF4G3 S1409	Cancer_only	2.08	1.46	0.81	0.37
O43815 1xPhospho [S245]	STRN S245	Cancer_only	1.13	1.57	0.80	0.65
Q9Y2H0 1xPhospho [S716]	DLGAP4 S716	Cancer_only	1.38	1.37	0.80	0.62
P51580 2xPhospho [S7;T16]	TPMT S7;T16	Cancer_only	1.09	1.40	0.80	1.05
Q8NG08 1xPhospho [S1021]	HELB S1021	Cancer_only	2.50	1.43	0.80	0.76
Q13136 1xPhospho [S741]	PPFIA1 S741	Cancer_only	1.17	1.53	0.79	0.31
Q3B820 1xPhospho [S650]	FAM161A S650	Cancer_only	1.72	1.75	0.79	2.02
Q8IWW6 1xPhospho [S240]	ARHGAP12 S240	Cancer_only	1.30	1.30	0.79	0.45
O60934 1xPhospho [S615]	NBN S615	Cancer_only	2.35	2.81	0.78	1.26
Q8WYQ5 2xPhospho [S271;S275]	DGCR8 S271;S275	Cancer_only	1.55	1.35	0.78	0.26
Q96A00 2xPhospho [S134;S136]	PPP1R14A S134;S136	Cancer_only	1.70	1.34	0.78	0.37
P18669 1xPhospho [S31]	PGAM1 S31	Cancer_only	2.23	1.57	0.78	0.33

O43474 1xPhospho [T316]	KLF4 T316	Cancer_only	1.74	1.68	0.78	0.55
P46821 1xPhospho [S1899]	MAP1B S1899	Cancer_only	1.74	1.73	0.77	0.97
Q15435 1xPhospho [S24]	PPP1R7 S24	Cancer_only	2.08	2.40	0.77	0.36
O94979 1xPhospho [S527]	SEC31A S527	Cancer_only	2.35	1.80	0.77	1.03
P35269 2xPhospho [S385;T389]	GTF2F1 S385;T389	Cancer_only	1.30	1.38	0.77	0.51
P62263 1xPhospho [S139]	RPS14 S139	Cancer_only	3.03	1.37	0.77	0.56
P10451 1xPhospho [S234]	SPP1 S234	Cancer_only	2.45	1.32	0.76	1.49
P27816 2xPhospho [S507;S510]	MAP4 S507;S510	Cancer_only	1.32	1.52	0.76	0.88
P31948 1xPhospho [S481]	STIP1 S481	Cancer_only	1.53	1.69	0.76	0.32
Q9UDY2 1xPhospho [T925]	TJP2 T925	Cancer_only	1.42	1.46	0.76	0.80
Q2NKX8 1xPhospho [S14]	ERCC6L S14	Cancer_only	1.71	1.51	0.76	0.44
Q16825 1xPhospho [S590]	PTPN21 S590	Cancer_only	1.01	1.68	0.76	1.12
Q9UJA5 1xPhospho [S288]	TRMT6 S288	Cancer_only	1.53	1.92	0.75	0.35
P57081 1xPhospho [S391]	WDR4 S391	Cancer_only	1.11	1.50	0.75	0.61
O00151 1xPhospho [S90]	PDLIM1 S90	Cancer_only	2.33	1.71	0.75	0.67
Q9NQG5 [149-182]	RPRD1B 149-182	Cancer_only	1.09	1.93	0.75	1.48
P35611 [355-382]	ADD1 355-382	Cancer_only	1.78	1.38	0.75	0.19
Q9NRY4 2xPhospho [S975;S985]	ARHGAP35 S975;S985	Cancer_only	1.33	1.45	0.75	0.26
Q9H1E3 [219-228]	NUCKS1 219-228	Cancer_only	2.87	1.50	0.74	2.90
Q7L1V2 1xPhospho [S61]	MON1B S61	Cancer_only	1.22	1.52	0.73	0.80
O43156 1xPhospho [S828]	TTI1 S828	Cancer_only	1.99	1.39	0.73	0.52
Q9H6E5 1xPhospho [S133]	TUT1 S133	Cancer_only	2.00	1.52	0.73	0.31
P56524 1xPhospho [S565]	HDAC4 S565	Cancer_only	1.25	1.34	0.73	0.26

Q7Z401 1xPhospho [S1390]	DENND4A S1390	Cancer_only	1.38	2.48	0.72	1.27
Q9Y3P9 1xPhospho [S42]	RABGAP1 S42	Cancer_only	2.41	1.33	0.72	0.37
P35367 2xPhospho [S230;S233]	HRH1 S230;S233	Cancer_only	1.57	1.86	0.72	0.31
O60271 1xPhospho [S588]	SPAG9 S588	Cancer_only	2.21	1.88	0.72	0.29
Q8TEQ0 1xPhospho [S810]	SNX29 S810	Cancer_only	1.22	1.81	0.72	0.36
O43768 1xPhospho [S67]	ENSA S67	Cancer_only	1.63	1.98	0.72	2.27
P56211 1xPhospho [S62]	ARPP19 S62	Cancer_only	1.63	1.98	0.72	2.27
P46821 2xPhospho [S1618;S1620]	MAP1B S1618;S1620	Cancer_only	1.52	1.60	0.71	1.91
P42166 2xPhospho [S180;S184]	TMPO S180;S184	Cancer_only	1.51	2.06	0.71	0.50
P51956 1xPhospho [T479]	NEK3 T479	Cancer_only	2.09	1.47	0.71	0.53
Q9UJF2 1xPhospho [S864]	RASAL2 S864	Cancer_only	5.02	2.20	0.71	0.14
O14974 1xPhospho [S445]	PPP1R12A S445	Cancer_only	1.51	1.62	0.71	0.20
Q9NSK0 1xPhospho [S590]	KLC4 S590	Cancer_only	1.83	2.30	0.71	1.41
Q8NB15 1xPhospho [S185]	ZNF511 S185	Cancer_only	1.84	1.48	0.71	0.50
O60504 1xPhospho [S395]	SORBS3 S395	Cancer_only	2.36	1.38	0.70	0.27
P29692 1xPhospho [S162]	EEF1D S162	Cancer_only	1.43	1.30	0.70	0.38
P05198 1xPhospho [S110]	EIF2S1 S110	Cancer_only	2.24	1.91	0.70	0.18
Q9P2T1 1xPhospho [S28]	GMPR2 S28	Cancer_only	1.74	1.69	0.70	0.21
P78524 1xPhospho [S622]	ST5 S622	Cancer_only	-1.81	2.23	0.70	0.60
P55060 1xPhospho [S112]	CSE1L S112	Cancer_only	1.71	2.39	0.70	0.97
P57737 1xPhospho [S21]	CORO7 S21	Cancer_only	1.50	1.43	0.70	0.46
Q9NTI5 1xPhospho [S1319]	PDS5B S1319	Cancer_only	1.61	2.15	0.70	0.58
Q6ZNJ1 1xPhospho [T1867]	NBEAL2 T1867	Cancer_only	1.04	1.74	0.69	1.03

Q86VQ1 2xPhospho [S396;S398]	GLCCI1 S396;S398	Cancer_only	1.21	2.75	0.69	1.45
Q86TU7 1xPhospho [S21]	SETD3 S21	Cancer_only	1.42	1.52	0.69	0.38
Q9BPX5 1xPhospho [S64]	ARPC5L S64	Cancer_only	1.62	1.75	0.69	0.41
P46821 2xPhospho [S1378;S1389]	MAP1B S1378;S1389	Cancer_only	1.91	1.47	0.69	0.34
P50747 1xPhospho [S147]	HLCS S147	Cancer_only	2.28	1.53	0.68	1.16
Q6PJG6 1xPhospho [S742]	BRAT1 S742	Cancer_only	1.77	1.64	0.68	0.56
P46100 [886-905]	ATRX 886-905	Cancer_only	-1.08	1.76	0.68	0.29
Q96R06 1xPhospho [S97]	SPAG5 S97	Cancer_only	-1.14	1.51	0.68	0.16
P46821 1xPhospho [S995]	MAP1B S995	Cancer_only	1.57	1.43	0.68	0.63
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S1441]	MAP1A S1441	Cancer_only	2.60	1.50	0.68	0.22
P78559 1xPhospho [S1203]	MAP1A S1203	Cancer_only	2.60	1.50	0.68	0.22
Q9C040 [360-385]	TRIM2 360-385	Cancer_only	1.51	3.18	0.67	0.39
Q14155 1xPhospho [S518]	ARHGEF7 S518	Cancer_only	1.98	1.77	0.67	0.53
Q15052 1xPhospho [S488]	ARHGEF6 S488	Cancer_only	1.98	1.77	0.67	0.53
Q7Z333 1xPhospho [S1148]	SETX S1148	Cancer_only	-1.25	2.10	0.67	0.87
O43933 1xPhospho [S1209]	PEX1 S1209	Cancer_only	1.26	1.52	0.67	0.58
Q9BPX3 1xPhospho [S818]	NCAPG S818	Cancer_only	1.06	2.15	0.67	0.43
P54253 1xPhospho [S406]	ATXN1 S406	Cancer_only	1.19	1.99	0.66	0.87
Q5JTH9 1xPhospho [S1049]	RRP12 S1049	Cancer_only	-2.05	1.54	0.66	0.13
Q99460 [270-302]	PSMD1 270-302	Cancer_only	1.27	1.42	0.66	0.13
O00499 1xPhospho [S303]	BIN1 S303	Cancer_only	2.18	1.32	0.66	0.34
O60551 1xPhospho [S70]	NMT2 S70	Cancer_only	1.53	1.55	0.66	0.43

Q14149 1xPhospho [S560]	MORC3 S560	Cancer_only	-1.34	2.22	0.65	0.24
Q08209 1xPhospho [S462]	PPP3CA S462	Cancer_only	1.34	2.11	0.65	1.72
P46821 2xPhospho [S1276;S/T]	MAP1B S1276;S/T	Cancer_only	2.06	1.53	0.65	0.37
P49903 [372-392]	SEPHS1 372-392	Cancer_only	1.64	1.51	0.65	0.19
Q9NV70 1xPhospho [T568]	EXOC1 T568	Cancer_only	1.23	1.61	0.64	0.24
Q5T4S7 1xPhospho [S178]	UBR4 S178	Cancer_only	1.10	2.75	0.64	0.32
Q3YEC7 2xPhospho [S640;S641]	RABL6 S640;S641	Cancer_only	2.06	1.32	0.64	0.80
P11142 [610-646]	HSPA8 610-646	Cancer_only	1.50	2.39	0.64	0.18
O75153 1xPhospho [S664]	CLUH S664	Cancer_only	2.29	2.61	0.64	0.48
Q9Y6G9 1xPhospho [S421]	DYNC1LI1 S421	Cancer_only	2.60	1.31	0.64	0.49
Q9NWZ5 1xPhospho [T547]	UCKL1 T547	Cancer_only	1.05	1.66	0.64	0.48
Q12802 1xPhospho [T953]	AKAP13 T953	Cancer_only	1.02	1.46	0.63	0.47
Q9Y520 2xPhospho [S2680;T/S]	PRRC2C S2680;T/S	Cancer_only	1.71	1.83	0.63	0.35
O60256 1xPhospho [S227]	PRPSAP2 S227	Cancer_only	1.30	1.37	0.62	0.62
Q6UX68 1xPhospho [S622]	XKR5 S622	Cancer_only	3.40	2.34	0.62	0.29
Q14157 1xPhospho [S416]	UBAP2L S416	Cancer_only	2.24	1.41	0.62	0.50
Q86TN4 1xPhospho [S240]	TRPT1 S240	Cancer_only	1.45	1.69	0.62	0.34
Q9Y4F5 1xPhospho [T1304]	CEP170B T1304	Cancer_only	1.04	1.68	0.62	0.90
Q6ZV73 1xPhospho [S554]	FGD6 S554	Cancer_only	3.73	2.72	0.62	0.57
Q8ND04 1xPhospho [S742]	SMG8 S742	Cancer_only	-1.21	1.58	0.62	0.39
Q14155 1xPhospho [S694]	ARHGEF7 S694	Cancer_only	1.28	1.54	0.61	0.39
Q15435 1xPhospho [S27]	PPP1R7 S27	Cancer_only	1.25	1.62	0.61	0.76
O00512 1xPhospho [T155]	BCL9 T155	Cancer_only	2.03	2.07	0.61	0.53

Q92995 1xPhospho [T122]	USP13 T122	Cancer_only	1.51	1.64	0.61	0.51
Q13409 1xPhospho [S104]	DYNC1I2 S104	Cancer_only	1.23	1.47	0.61	2.64
Q9Y4H2 1xPhospho [S1203]	IRS2 S1203	Cancer_only	1.98	1.42	0.61	0.30
Q08AE8 1xPhospho [S678]	SPIRE1 S678	Cancer_only	1.25	1.78	0.61	0.58
Q969V6 [444-460]	MKL1 444-460	Cancer_only	1.53	2.17	0.60	0.18
P46821 2xPhospho [S1785;T1788]	MAP1B S1785;T1788	Cancer_only	1.36	2.04	0.59	2.97
Q9P260 2xPhospho [S180;S193]	KIAA1468 S180;S193	Cancer_only	1.66	1.83	0.59	0.16
Q6AI08 [490-503]	HEATR6 490-503	Cancer_only	1.00	1.58	0.59	0.50
Q14258 1xPhospho [S100]	TRIM25 S100	Cancer_only	1.06	1.34	0.58	1.28
Q9UBB9 1xPhospho [S392]	TFIP11 S392	Cancer_only	-1.04	1.85	0.58	0.53
O75822 1xPhospho [T109]	EIF3J T109	Cancer_only	1.31	2.58	0.58	0.30
Q8N8N7 1xPhospho [S270]	PTGR2 S270	Cancer_only	1.61	1.44	0.58	0.31
O00499 2xPhospho [S296;S298]	BIN1 S296;S298	Cancer_only	1.21	1.65	0.58	0.31
P23588 1xPhospho [S498]	EIF4B S498	Cancer_only	1.26	2.27	0.58	0.33
Q7Z2W9 1xPhospho [S197]	MRPL21 S197	Cancer_only	1.13	1.66	0.58	0.21
P14625 1xPhospho [S306]	HSP90B1 S306	Cancer_only	1.41	1.32	0.57	0.32
Q9P270 1xPhospho [S160]	SLAIN2 S160	Cancer_only	1.78	1.64	0.57	0.33
Q9H4L4 2xPhospho [S169;S181]	SENP3 S169;S181	Cancer_only	-1.05	1.51	0.57	0.18
O75382 1xPhospho [S7]	TRIM3 S7	Cancer_only	2.08	1.85	0.57	0.30
Q09472 [884-915]	EP300 884-915	Cancer_only	1.23	1.39	0.57	0.28
O95793 1xPhospho [S390]	STAU1 S390	Cancer_only	1.16	1.47	0.57	1.09
Q9UQL6 1xPhospho [S259]	HDAC5 S259	Cancer_only	1.22	1.97	0.56	0.39
P56524 1xPhospho [S246]	HDAC4 S246	Cancer_only	1.22	1.97	0.56	0.39

Q92878 1xPhospho [S635]	RAD50 S635	Cancer_only	1.31	1.42	0.56	1.18
P18206 1xPhospho [S290]	VCL S290	Cancer_only	2.55	1.34	0.56	0.28
Q3YEC7 1xPhospho [T408]	RABL6 T408	Cancer_only	1.42	1.88	0.56	0.24
Q9HCM1 2xPhospho [S1740;S1743]	KIAA1551 S1740;S1743	Cancer_only	1.34	1.55	0.56	0.18
O14907 1xPhospho [S61]	TAX1BP3 S61	Cancer_only	2.18	1.30	0.56	1.15
Q68EM7 1xPhospho [S575]	ARHGAP17 S575	Cancer_only	1.28	2.75	0.56	0.25
O96018 1xPhospho [T32]	APBA3 T32	Cancer_only	1.68	1.38	0.56	0.73
Q99466 2xPhospho [S125;S128]	NOTCH4 S125;S128	Cancer_only	1.24	1.76	0.56	1.51
P46821 [1864-1894]	MAP1B 1864-1894	Cancer_only	1.30	1.42	0.55	0.21
Q9P219 1xPhospho [S953]	CCDC88C S953	Cancer_only	1.70	2.19	0.55	0.64
Q5VVQ6 1xPhospho [S130]	YOD1 S130	Cancer_only	2.42	1.40	0.55	0.31
Q9UPW6 1xPhospho [S587]	SATB2 S587	Cancer_only	-1.95	1.67	0.55	0.19
Q9Y2K5 1xPhospho [S855]	R3HDM2 S855	Cancer_only	1.08	1.84	0.55	0.35
Q9Y2H2 1xPhospho [S935]	INPP5F S935	Cancer_only	1.53	1.34	0.54	1.17
Q16181 1xPhospho [T228]	Sep-07 T228	Cancer_only	1.34	1.31	0.54	0.22
Q9H4G0 1xPhospho [S704]	EPB41L1 S704	Cancer_only	-1.48	1.37	0.54	0.16
Q15185 2xPhospho [S148;S151]	PTGES3 S148;S151	Cancer_only	2.21	1.43	0.53	0.60
Q96SB4 2xPhospho [S309;S311]	SRPK1 S309;S311	Cancer_only	1.20	1.59	0.53	0.52
Q96JG9 [2240-2256]	ZNF469 2240-2256	Cancer_only	-2.37	1.89	0.53	0.55
Q9HCL0 2xPhospho [S778;S780]	PCDH18 S778;S780	Cancer_only	1.66	2.41	0.53	0.37
A6NKF1 1xPhospho [S402]	SAC3D1 S402	Cancer_only	1.11	1.86	0.53	0.48
Q9UK76 1xPhospho [S87]	HN1 S87	Cancer_only	1.27	1.49	0.52	0.35

Q96EV2 1xPhospho [S205]	RBM33 S205	Cancer_only	1.25	1.64	0.52	0.32
P56524 1xPhospho [S632]	HDAC4 S632	Cancer_only	1.13	1.86	0.52	0.47
P0CAP2 1xPhospho [S179]	POLR2M S179	Cancer_only	2.00	1.80	0.52	0.20
Q96JG6 2xPhospho [S559;S561]	CCDC132 S559;S561	Cancer_only	1.17	2.44	0.52	0.27
Q5JTD0 1xPhospho [S300]	TJAP1 S300	Cancer_only	1.25	1.70	0.51	0.49
P54132 1xPhospho [S144]	BLM S144	Cancer_only	-1.11	1.74	0.51	0.11
P41236 1xPhospho [S122]	PPP1R2 S122	Cancer_only	2.38	2.32	0.51	0.32
Q9BY89 1xPhospho [S1506]	KIAA1671 S1506	Cancer_only	1.49	1.49	0.51	0.29
Q12923 1xPhospho [S2107]	PTPN13 S2107	Cancer_only	-1.86	1.97	0.51	0.33
P26373 1xPhospho [S140]	RPL13 S140	Cancer_only	1.12	1.62	0.50	0.34
Q9NSK0 1xPhospho [S611]	KLC4 S611	Cancer_only	1.64	1.64	0.50	1.11
Q6PKG0 1xPhospho [S225]	LARP1 S225	Cancer_only	1.05	1.76	0.50	0.35
P11137 1xPhospho [S1155]	MAP2 S1155	Cancer_only	1.15	1.39	0.50	1.02
Q9BW71 2xPhospho [S223;S227]	HIRIP3 S223;S227	Cancer_only	1.60	1.35	0.50	0.39
P26599 1xPhospho [S141]	PTBP1 S141	Cancer_only	1.32	2.09	0.49	0.46
Q8NBS3 1xPhospho [S80]	SLC4A11 S80	Cancer_only	1.33	1.57	0.49	1.00
Q96J02 1xPhospho [S221]	ITCH S221	Cancer_only	1.64	1.68	0.49	0.49
P35568 1xPhospho [S862]	IRS1 S862	Cancer_only	1.99	1.42	0.49	1.39
O43314 2xPhospho [S492;S493]	PPIP5K2 S492;S493	Cancer_only	1.39	2.00	0.49	0.42
P49770 1xPhospho [T173]	EIF2B2 T173	Cancer_only	1.77	2.44	0.49	0.28
P51587 1xPhospho [T703]	BRCA2 T703	Cancer_only	-1.32	3.00	0.49	0.07
Q5T1R4 1xPhospho [S948]	HIVEP3 S948	Cancer_only	1.70	1.53	0.49	0.33
O95793 1xPhospho [S176]	STAU1 S176	Cancer_only	1.41	2.52	0.48	0.49

P0C7T5 1xPhospho [T333]	ATXN1L T333	Cancer_only	1.56	1.33	0.48	0.48
O60333 1xPhospho [S1487]	KIF1B S1487	Cancer_only	1.78	1.79	0.48	0.61
Q9H074 1xPhospho [T390]	PAIP1 T390	Cancer_only	3.73	1.66	0.48	0.21
P25116 1xPhospho [S400]	F2R S400	Cancer_only	1.59	2.90	0.48	0.53
P51397 1xPhospho [S51]	DAP S51	Cancer_only	1.17	1.66	0.47	0.78
Q9Y6D5 1xPhospho [S1511]	ARFGEF2 S1511	Cancer_only	1.65	1.40	0.47	0.68
Q8NA72 [101-111]	POC5 101-111	Cancer_only	1.01	1.37	0.47	1.29
Q15311 2xPhospho [S92;S93]	RALBP1 S92;S93	Cancer_only	1.17	1.49	0.46	0.78
P27816 1xPhospho [T521]	MAP4 T521	Cancer_only	1.65	1.78	0.46	0.52
Q5T481 1xPhospho [S1080]	RBM20 S1080	Cancer_only	-1.20	1.66	0.45	0.91
P56211 1xPhospho [S23]	ARPP19 S23	Cancer_only	2.21	1.44	0.45	0.42
Q8TE77 1xPhospho [S87]	SSH3 S87	Cancer_only	2.31	1.68	0.45	0.54
Q15185 2xPhospho [S113;S118]	PTGES3 S113;S118	Cancer_only	1.72	1.35	0.45	0.97
Q9UPR0 1xPhospho [T584]	PLCL2 T584	Cancer_only	1.22	1.45	0.44	0.11
Q5UIP0 1xPhospho [S1542]	RIF1 S1542	Cancer_only	-1.40	1.79	0.44	0.33
Q9BW71 1xPhospho [S125]	HIRIP3 S125	Cancer_only	1.08	1.51	0.44	0.49
Q9BZQ8 1xPhospho [S622]	FAM129A S622	Cancer_only	2.01	1.53	0.44	0.22
Q9Y6Y8 1xPhospho [S728]	SEC23IP S728	Cancer_only	1.19	1.71	0.43	0.36
Q14C86 [755-781]	GAPVD1 755-781	Cancer_only	1.37	1.55	0.43	0.52
Q00341 2xPhospho [S31;S35]	HDLBP S31;S35	Cancer_only	1.18	2.38	0.43	0.72
Q6ZSR9 1xPhospho [S93]	FLJ45252 S93	Cancer_only	1.04	1.44	0.43	0.37
Q9P260 1xPhospho [S193]	KIAA1468 S193	Cancer_only	2.08	2.01	0.42	0.27
Q9BPX3 1xPhospho [S674]	NCAPG S674	Cancer_only	1.02	2.30	0.42	0.19

O15234 1xPhospho [T443]	CASC3 T443	Cancer_only	1.79	1.47	0.42	0.15
P57078 1xPhospho [S420]	RIPK4 S420	Cancer_only	-1.16	1.54	0.42	0.29
P0DN79 1xPhospho [S32]	CBSL S32	Cancer_only	1.73	1.39	0.42	0.23
Q4G0J3 1xPhospho [S286]	LARP7 S286	Cancer_only	-1.22	1.32	0.42	1.23
O60502 1xPhospho [S364]	MGEA5 S364	Cancer_only	1.45	1.36	0.42	0.43
O43719 1xPhospho [S702]	HTATSF1 S702	Cancer_only	1.63	1.44	0.40	0.58
Q9P270 2xPhospho [S247;S250]	SLAIN2 S247;S250	Cancer_only	2.56	1.59	0.40	0.26
O43852 1xPhospho [S69]	CALU S69	Cancer_only	1.07	1.50	0.40	0.27
P46937 2xPhospho [S109;T119]	YAP1 S109;T119	Cancer_only	1.31	1.51	0.39	0.43
Q8N1G4 1xPhospho [S520]	LRRC47 S520	Cancer_only	1.67	1.75	0.39	0.21
Q9H4G0 1xPhospho [S678]	EPB41L1 S678	Cancer_only	1.25	1.55	0.39	0.12
Q9BZ71 [926-943]	PITPNM3 926-943	Cancer_only	1.46	2.16	0.38	0.18
Q9UN86 1xPhospho [T227]	G3BP2 T227	Cancer_only	1.23	1.66	0.38	0.24
P53805 1xPhospho [S218]	RCAN1 S218	Cancer_only	1.59	1.36	0.38	0.32
Q16512 1xPhospho [S916]	PKN1 S916	Cancer_only	2.03	2.24	0.37	0.38
P11137 [721-755]	MAP2 721-755	Cancer_only	1.56	1.50	0.37	0.27
Q15003 1xPhospho [S87]	NCAPH S87	Cancer_only	-2.30	1.42	0.36	0.06
P55198 1xPhospho [S423]	MLLT6 S423	Cancer_only	-1.67	1.55	0.35	0.85
P27816 1xPhospho [S1073]	MAP4 S1073	Cancer_only	1.23	1.36	0.35	0.14
P31321 2xPhospho [S77;S83]	PRKAR1B S77;S83	Cancer_only	1.68	1.37	0.35	0.28
Q9HD40 [488-501]	SEPSECS 488-501	Cancer_only	1.31	1.30	0.35	0.12
P46821 1xPhospho [S614]	MAP1B S614	Cancer_only	1.49	1.73	0.34	0.21
Q6P0Q8 1xPhospho [S66]	MAST2 S66	Cancer_only	1.36	1.70	0.34	1.14

Q9C0C2 1xPhospho [S1328]	TNKS1BP1 S1328	Cancer_only	1.43	1.90	0.33	0.16
Q9UIS9 1xPhospho [S311]	MBD1 S311	Cancer_only	1.09	1.87	0.33	0.73
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S1134]	MAP1A S1134	Cancer_only	1.67	1.63	0.32	0.12
P78559 1xPhospho [S896]	MAP1A S896	Cancer_only	1.67	1.63	0.32	0.12
Q96TA1 2xPhospho [S665;S681]	FAM129B S665;S681	Cancer_only	1.21	1.44	0.32	0.18
Q15424 2xPhospho [S614;S617]	SAFB S614;S617	Cancer_only	-1.68	1.36	0.32	0.48
Q9BTX1 1xPhospho [S504]	NDC1 S504	Cancer_only	-1.19	2.05	0.31	0.32
Q96G01 1xPhospho [S399]	BICD1 S399	Cancer_only	1.64	1.93	0.30	0.57
Q3YEC7 2xPhospho [S596;T599]	RABL6 S596;T599	Cancer_only	1.29	2.13	0.30	0.23
Q96A00 1xPhospho [S128]	PPP1R14A S128	Cancer_only	2.14	2.62	0.29	0.17
Q2NKX8 1xPhospho [S807]	ERCC6L S807	Cancer_only	1.35	1.50	0.29	0.10
Q14739 [51-61]	LBR 51-61	Cancer_only	-3.24	2.22	0.29	0.04
Q96P16 1xPhospho [S156]	RPRD1A S156	Cancer_only	1.23	1.76	0.29	0.10
Q96D09 [510-529]	GPRASP2 510-529	Cancer_only	1.59	1.64	0.29	0.40
Q9NPF5 1xPhospho [T237]	DMAP1 T237	Cancer_only	-1.01	1.42	0.28	1.10
Q14669 1xPhospho [S997]	TRIP12 S997	Cancer_only	-1.48	1.31	0.28	0.25
P15056 [363-384]	BRAF 363-384	Cancer_only	1.67	1.52	0.28	0.30
Q8NEY8 1xPhospho [S133]	PPHLN1 S133	Cancer_only	-1.73	1.56	0.28	0.07
Q9UEY8 1xPhospho [S423]	ADD3 S423	Cancer_only	1.55	1.45	0.28	0.18
Q8TCN5 1xPhospho [S487]	ZNF507 S487	Cancer_only	-1.33	1.63	0.27	0.11
Q96JC9 1xPhospho [S165]	EAF1 S165	Cancer_only	1.17	2.08	0.27	0.38
P46940 1xPhospho [S482]	IQGAP1 S482	Cancer_only	1.26	1.65	0.26	0.53

Q8NEY8 2xPhospho [S153;S155]	PPHLN1 S153;S155	Cancer_only	-1.78	1.49	0.26	0.09
Q9P275 1xPhospho [S952]	USP36 S952	Cancer_only	-1.30	2.10	0.26	0.42
P46109 1xPhospho [S185]	CRKL S185	Cancer_only	2.01	1.45	0.26	0.19
P49321 1xPhospho [S726]	NASP S726	Cancer_only	1.14	1.46	0.25	0.12
Q96JC9 1xPhospho [S158]	EAF1 S158	Cancer_only	1.10	1.55	0.25	0.30
Q12888 2xPhospho [S1426;S1430]	TP53BP1 S1426;S1430	Cancer_only	1.70	1.72	0.24	0.11
Q14195 1xPhospho [S402]	DPYSL3 S402	Cancer_only	1.73	2.17	0.24	0.22
Q6PKG0 2xPhospho [S225;S228]	LARP1 S225;S228	Cancer_only	1.38	1.38	0.24	0.25
Q9H3P7 1xPhospho [S43]	ACBD3 S43	Cancer_only	1.63	1.37	0.23	0.09
Q2M3G4 1xPhospho [S49]	SHROOM1 S49	Cancer_only	1.12	1.41	0.23	0.10
Q69YH5 1xPhospho [T34]	CDCA2 T34	Cancer_only	1.07	1.48	0.23	0.78
Q9NRB3 [372-383]	CHST12 372-383	Cancer_only	1.18	2.10	0.23	0.22
Q01105 1xPhospho [S184]	SET S184	Cancer_only	2.13	2.23	0.22	0.10
Q8NFH8 1xPhospho [T479]	REPS2 T479	Cancer_only	2.04	2.03	0.22	0.53
Q9BZL4 [479-503]	PPP1R12C 479-503	Cancer_only	1.35	1.76	0.22	0.19
Q14814 1xPhospho [S98]	MEF2D S98	Cancer_only	1.18	1.66	0.22	0.35
Q02880 1xPhospho [S1457]	TOP2B S1457	Cancer_only	2.38	1.43	0.22	0.06
Q5T200 [435-444]	ZC3H13 435-444	Cancer_only	-1.51	1.50	0.21	0.22
P18206 1xPhospho [S346]	VCL S346	Cancer_only	2.81	3.25	0.21	0.04
P49321 1xPhospho [S480]	NASP S480	Cancer_only	1.93	1.33	0.20	0.18
Q6P2E9 2xPhospho [S734;T/S]	EDC4 S734;T/S	Cancer_only	1.45	1.42	0.20	0.29
Q53H80 1xPhospho [S21]	AKIRIN2 S21	Cancer_only	-1.68	1.47	0.20	0.45
Q5T200 1xPhospho [S1292]	ZC3H13 S1292	Cancer_only	-1.16	2.44	0.19	0.20

Q8IXQ3 1xPhospho [S69]	C9orf40 S69	Cancer_only	-1.32	1.69	0.19	0.42
Q9NTZ6 2xPhospho [S422;S424]	RBM12 S422;S424	Cancer_only	1.17	1.79	0.19	0.13
Q9H9J4 1xPhospho [S1247]	USP42 S1247	Cancer_only	-2.21	2.41	0.19	0.25
Q9NSK0 1xPhospho [S566]	KLC4 S566	Cancer_only	1.59	2.19	0.19	0.14
O95071 2xPhospho [S2483;S2486]	UBR5 S2483;S2486	Cancer_only	-1.95	2.23	0.19	0.05
Q9H1A4 1xPhospho [S731]	ANAPC1 S731	Cancer_only	-1.06	1.31	0.19	0.34
Q9UDY2 1xPhospho [S920]	TJP2 S920	Cancer_only	1.48	1.96	0.19	0.29
P49736 1xPhospho [S170]	MCM2 S170	Cancer_only	1.09	1.44	0.19	0.60
P25116 1xPhospho [S418]	F2R S418	Cancer_only	2.66	1.72	0.19	0.10
Q5T0N5 1xPhospho [S295]	FNBP1L S295	Cancer_only	2.33	2.61	0.19	0.06
P08237 1xPhospho [T304]	PFKM T304	Cancer_only	1.26	2.40	0.19	0.48
P17858 1xPhospho [T304]	PFKL T304	Cancer_only	1.26	2.40	0.19	0.48
Q01813 1xPhospho [T313]	PFKP T313	Cancer_only	1.26	2.40	0.19	0.48
Q03701 1xPhospho [S835]	CEBPZ S835	Cancer_only	-1.09	1.45	0.19	0.09
Q96B23 [64-83]	C18orf25 64-83	Cancer_only	1.38	1.52	0.18	0.08
Q8IYB3 1xPhospho [S638]	SRRM1 S638	Cancer_only	1.00	2.66	0.18	1.56
Q14195 1xPhospho [S522]	DPYSL3 S522	Cancer_only	1.72	1.89	0.18	0.09
Q9P227 1xPhospho [S372]	ARHGAP23 S372	Cancer_only	-1.44	2.29	0.18	0.13
Q15036 1xPhospho [S421]	SNX17 S421	Cancer_only	1.21	2.11	0.18	0.11
Q8TCU6 1xPhospho [S1200]	PREX1 S1200	Cancer_only	1.83	1.31	0.18	0.32
P18858 2xPhospho [T918;S/Y]	LIG1 T918;S/Y	Cancer_only	1.07	1.61	0.18	0.62
Q9P270 1xPhospho [S413]	SLAIN2 S413	Cancer_only	1.23	1.36	0.18	0.43
Q76I76 1xPhospho [S1259]	SSH2 S1259	Cancer_only	1.78	1.37	0.17	0.16

Q07021 1xPhospho [S213]	C1QBP S213	Cancer_only	-1.12	2.03	0.17	2.70
Q9HCE3 1xPhospho [S307]	ZNF532 S307	Cancer_only	-1.27	1.71	0.16	1.33
Q9HCD6 1xPhospho [S1545]	TANC2 S1545	Cancer_only	-2.65	1.55	0.16	0.05
Q92729 2xPhospho [S863;T867]	PTPRU S863;T867	Cancer_only	1.88	1.81	0.14	0.15
O60353 1xPhospho [S653]	FZD6 S653	Cancer_only	-1.48	1.61	0.14	0.09
Q8NF91 2xPhospho [S8280;T/S/Y]	SYNE1 S8280;T/S/Y	Cancer_only	-1.70	1.67	0.14	0.20
Q9Y6M5 1xPhospho [S506]	SLC30A1 S506	Cancer_only	-1.28	1.53	0.13	0.11
P50990 1xPhospho [S23]	CCT8 S23	Cancer_only	1.34	2.76	0.13	0.20
Q5SW79 2xPhospho [S928;S930]	CEP170 S928;S930	Cancer_only	1.31	1.66	0.13	0.47
P78347 1xPhospho [S823]	GTF2I S823	Cancer_only	-2.90	1.34	0.13	0.02
Q969R5 1xPhospho [S689]	L3MBTL2 S689	Cancer_only	-1.69	1.61	0.13	0.03
Q9C0D5 1xPhospho [S243]	TANC1 S243	Cancer_only	-1.21	2.05	0.12	0.34
O43719 2xPhospho [S452;S453]	HTATSF1 S452;S453	Cancer_only	1.89	1.37	0.12	0.68
Q9UQB8 1xPhospho [S366]	BAIAP2 S366	Cancer_only	2.33	1.48	0.12	0.07
P27816 1xPhospho [T585]	MAP4 T585	Cancer_only	1.28	1.32	0.12	0.19
O14979 1xPhospho [S241]	HNRNPDL S241	Cancer_only	1.65	1.35	0.12	0.15
O75534 1xPhospho [S276]	CSDE1 S276	Cancer_only	1.51	1.41	0.12	0.03
Q6ZVH7 1xPhospho [S786]	ESPNL S786	Cancer_only	1.16	2.38	0.12	1.24
P38398 1xPhospho [S186]	BRCA1 S186	Cancer_only	-1.60	2.66	0.11	0.03
Q6P2E9 1xPhospho [S879]	EDC4 S879	Cancer_only	1.11	1.95	0.11	0.13
P55197 1xPhospho [S436]	MLLT10 S436	Cancer_only	-1.54	1.35	0.11	0.10
Q9H4L5 1xPhospho [S425]	OSBPL3 S425	Cancer_only	-1.92	1.70	0.11	0.04
Q13428 1xPhospho [S1471]	TCOF1 S1471	Cancer_only	-1.22	1.46	0.11	0.08

Q9P2B4 1xPhospho [S481]	CTTNBP2NL S481	Cancer_only	1.84	2.15	0.11	0.05
Q9NQ92 1xPhospho [S87]	COPRS S87	Cancer_only	1.50	2.37	0.11	0.10
P13716 1xPhospho [S215]	ALAD S215	Cancer_only	1.72	1.39	0.10	0.10
O94923 1xPhospho [S73]	GLCE S73	Cancer_only	-1.37	1.40	0.10	0.27
Q9C086 1xPhospho [S63]	INO80B S63	Cancer_only	-2.27	1.84	0.10	0.05
Q96HH9 1xPhospho [S252]	GRAMD3 S252	Cancer_only	-1.27	1.50	0.10	0.09
Q12788 1xPhospho [S257]	TBL3 S257	Cancer_only	-1.74	1.42	0.10	0.39
Q9BY89 1xPhospho [S1695]	KIAA1671 S1695	Cancer_only	-1.46	1.38	0.10	0.02
P62258 [226-255]	YWHAE 226-255	Cancer_only	2.30	2.12	0.09	0.02
O94854 1xPhospho [S64]	KIAA0754 S64	Cancer_only	-1.22	1.65	0.09	0.19
Q01130 1xPhospho [S26]	SRSF2 S26	Cancer_only	1.25	2.28	0.09	0.03
Q9H9D4 1xPhospho [T322]	ZNF408 T322	Cancer_only	1.74	2.12	0.09	0.04
Q08499 1xPhospho [S348]	PDE4D S348	Cancer_only	1.59	1.61	0.09	0.05
O43719 2xPhospho [S494;S498]	HTATSF1 S494;S498	Cancer_only	1.75	1.94	0.09	0.32
Q15276 1xPhospho [S162]	RABEP1 S162	Cancer_only	1.29	1.46	0.08	0.02
Q96C90 1xPhospho [S32]	PPP1R14B S32	Cancer_only	1.10	1.56	0.08	0.05
Q9UHA3 1xPhospho [S68]	RSL24D1 S68	Cancer_only	-1.69	1.93	0.07	0.04
Q9BXL7 1xPhospho [S535]	CARD11 S535	Cancer_only	1.13	1.37	0.07	0.06
Q9P212 1xPhospho [S1121]	PLCE1 S1121	Cancer_only	-1.26	1.62	0.06	1.39
Q15287 1xPhospho [S27]	RNPS1 S27	Cancer_only	-1.04	1.63	0.06	0.99
Q96L91 1xPhospho [S358]	EP400 S358	Cancer_only	-1.21	1.98	0.06	0.02
P51116 1xPhospho [S453]	FXR2 S453	Cancer_only	1.33	1.46	0.06	0.12
O95754 1xPhospho [S769]	SEMA4F S769	Cancer_only	-1.02	2.65	0.05	0.03

O75592 2xPhospho [S2838;S2839]	MYCBP2 S2838;S2839	Cancer_only	-1.88	1.42	0.05	0.03
P33316 1xPhospho [S243]	DUT S243	Cancer_only	1.30	1.39	0.04	0.01
Q68DK2 1xPhospho [S703]	ZFYVE26 S703	Cancer_only	1.11	1.91	0.04	0.03
Q8N392 1xPhospho [S66]	ARHGAP18 S66	Cancer_only	2.79	2.32	0.03	0.01
Q9BYV8 2xPhospho [S96;S99]	CEP41 S96;S99	Cancer_only	1.09	1.42	0.03	0.08
Q6ZV73 1xPhospho [S515]	FGD6 S515	Cancer_only	1.21	1.52	0.02	0.01
P04626 1xPhospho [S998]	ERBB2 S998	Cancer_only	-2.38	1.49	0.02	0.06
Q9HBL0 [1339-1378]	TNS1 1339-1378	Cancer_only	1.98	1.46	0.02	0.00
P11171 1xPhospho [S542]	EPB41 S542	Cancer_only	-1.19	1.90	0.02	0.10
Q16630 2xPhospho [S511;S513]	CPSF6 S511;S513	Cancer_only	1.08	1.64	0.02	0.03
Q99996 1xPhospho [S1235]	AKAP9 S1235	Cancer_only	1.70	1.39	0.02	0.00
O60504 1xPhospho [S530]	SORBS3 S530	Cancer_only	1.52	3.34	0.01	0.00
Q9H0B6 1xPhospho [S589]	KLC2 S589	Cancer_only	1.24	2.49	0.01	0.01
Q9NVC3 1xPhospho [S28]	SLC38A7 S28	Cancer_only	-1.08	2.72	0.01	0.01
Q9UHB7 2xPhospho [S212;S222]	AFF4 S212;S222	Cancer_only	-1.09	1.33	0.01	0.02
Q86U86 1xPhospho [S948]	PBRM1 S948	Cancer_only	-2.31	1.46	0.01	0.02
Q2KHR2 1xPhospho [T467]	RFX7 T467	Cancer_only	-1.04	2.22	0.01	0.00
Q5JTD0 1xPhospho [S545]	TJAP1 S545	Cancer_only	1.10	1.46	0.00	0.00
Q9ULI0 1xPhospho [S318]	ATAD2B S318	Cancer_only	-1.07	1.83	0.00	0.01
Q9UGY1 1xPhospho [T124]	NOL12 T124	Cancer_only	-1.84	1.33	-0.01	0.01
Q6P0N0 1xPhospho [S1008]	MIS18BP1 S1008	Cancer_only	-1.93	1.44	-0.01	0.00
Q99638 2xPhospho [S272;S277]	RAD9A S272;S277	Cancer_only	1.24	1.70	-0.01	0.08
Q99590 1xPhospho [S608]	SCAF11 S608	Cancer_only	-1.23	1.83	-0.01	0.04

P0DP91 1xPhospho [S554]	S554	Cancer_only	1.29	1.91	-0.02	0.01
P41440 1xPhospho [S225]	SLC19A1 S225	Cancer_only	-2.06	1.30	-0.03	0.03
Q14203 1xPhospho [T108]	DCTN1 T108	Cancer_only	1.25	1.44	-0.03	0.01
P25054 2xPhospho [S2533;S2535]	APC S2533;S2535	Cancer_only	-2.62	1.43	-0.03	0.10
Q9BZI7 1xPhospho [S310]	UPF3B S310	Cancer_only	2.19	2.53	-0.03	0.01
O94929 1xPhospho [S493]	ABLIM3 S493	Cancer_only	-2.38	1.38	-0.04	0.01
Q9NWH9 1xPhospho [S590]	SLTM S590	Cancer_only	-4.60	1.38	-0.04	0.00
Q86YS7 2xPhospho [S307;S/T]	C2CD5 S307;S/T	Cancer_only	1.85	1.33	-0.04	0.03
Q9GZR7 2xPhospho [S82;S94]	DDX24 S82;S94	Cancer_only	-1.51	1.45	-0.05	0.02
P07237 1xPhospho [S331]	P4HB S331	Cancer_only	1.68	3.08	-0.05	0.54
Q9H9A7 1xPhospho [S225]	RMI1 S225	Cancer_only	1.79	1.93	-0.07	0.01
Q49A88 1xPhospho [S798]	CCDC14 S798	Cancer_only	-1.52	1.33	-0.07	0.08
Q7Z4S6 1xPhospho [S1673]	KIF21A S1673	Cancer_only	1.15	1.43	-0.07	0.02
Q9UBZ9 1xPhospho [S1108]	REV1 S1108	Cancer_only	-1.63	1.32	-0.07	0.05
Q14683 1xPhospho [S970]	SMC1A S970	Cancer_only	1.21	1.70	-0.08	1.12
P06748 1xPhospho [T279]	NPM1 T279	Cancer_only	1.41	1.61	-0.08	0.69
Q5JTJ3 1xPhospho [S125]	COA6 S125	Cancer_only	1.79	2.05	-0.08	0.11
P26374 1xPhospho [S166]	CHML S166	Cancer_only	1.34	2.45	-0.08	0.04
ENST00000382031_NCI-H1792_Mis:P2036S 2xPhospho [S1384;S1390]	MAP1A S1384;S1390	Cancer_only	1.19	2.05	-0.08	0.23
P78559 2xPhospho [S1146;S1152]	MAP1A S1146;S1152	Cancer_only	1.19	2.05	-0.08	0.23
P53814 2xPhospho [S357;T360]	SMTN S357;T360	Cancer_only	1.11	1.62	-0.09	0.55
Q8IVF5 1xPhospho [S1583]	TIAM2 S1583	Cancer_only	-2.18	1.60	-0.09	0.04

P16949 1xPhospho [S38]	STMN1 S38	Cancer_only	1.58	1.49	-0.09	0.28
P22466 1xPhospho [S116]	GAL S116	Cancer_only	-1.62	1.73	-0.09	0.14
Q14966 1xPhospho [S552]	ZNF638 S552	Cancer_only	-1.38	1.49	-0.10	0.03
Q147X3 1xPhospho [S55]	NAA30 S55	Cancer_only	1.17	1.86	-0.10	0.14
Q9GZZ9 1xPhospho [S358]	UBA5 S358	Cancer_only	1.58	1.36	-0.10	0.39
Q1MSJ5 1xPhospho [S459]	CSPP1 S459	Cancer_only	-1.50	1.39	-0.10	0.06
Q9NZN5 1xPhospho [S341]	ARHGEF12 S341	Cancer_only	1.71	1.48	-0.10	0.20
Q92903 1xPhospho [T33]	CDS1 T33	Cancer_only	-1.58	1.35	-0.10	1.35
A1L390 1xPhospho [S76]	PLEKHG3 S76	Cancer_only	-1.22	2.28	-0.11	0.37
Q6PD62 2xPhospho [S1041;S1043]	CTR9 S1041;S1043	Cancer_only	-1.56	1.37	-0.11	0.46
Q5JTV8 1xPhospho [S315]	TOR1AIP1 S315	Cancer_only	1.05	1.99	-0.11	0.24
Q9BTC8 1xPhospho [S519]	MTA3 S519	Cancer_only	-2.20	1.62	-0.12	0.04
Q5UIP0 [2189-2200]	RIF1 2189-2200	Cancer_only	-1.21	1.63	-0.12	0.25
Q13637 1xPhospho [S152]	RAB32 S152	Cancer_only	-2.37	1.33	-0.12	0.05
Q9H1K0 2xPhospho [S230;S]	RBSN S230;S	Cancer_only	1.05	1.80	-0.12	0.04
Q8NG27 1xPhospho [S265]	PJA1 S265	Cancer_only	-1.78	1.54	-0.13	0.08
Q9NRF8 2xPhospho [S568;S574]	CTPS2 S568;S574	Cancer_only	1.80	1.42	-0.13	0.08
O75494 1xPhospho [S133]	SRSF10 S133	Cancer_only	1.15	1.87	-0.13	0.07
Q8IXL6 1xPhospho [S75]	FAM20C S75	Cancer_only	-1.61	1.36	-0.13	0.19
Q9BQK8 2xPhospho [S204;S224]	LPIN3 S204;S224	Cancer_only	1.01	1.76	-0.13	0.09
O43166 1xPhospho [S318]	SIPA1L1 S318	Cancer_only	-1.04	1.80	-0.14	0.32
Q96AV8 [424-453]	E2F7 424-453	Cancer_only	-2.40	1.53	-0.14	0.07
Q9NYB9 1xPhospho [S227]	ABI2 S227	Cancer_only	1.05	1.42	-0.14	0.06

P78552 1xPhospho [S415]	IL13RA1 S415	Cancer_only	-1.50	1.41	-0.14	0.09
Q2KHR2 1xPhospho [S1232]	RFX7 S1232	Cancer_only	-1.56	2.01	-0.15	0.46
Q13049 1xPhospho [T257]	TRIM32 T257	Cancer_only	2.50	1.49	-0.15	0.11
Q96Q42 2xPhospho [S1460;S/Y/T]	ALS2 S1460;S/Y/T	Cancer_only	2.07	1.33	-0.15	0.16
Q13895 1xPhospho [S98]	BYSL S98	Cancer_only	-1.14	1.65	-0.15	0.24
Q9UGV2 1xPhospho [S361]	NDRG3 S361	Cancer_only	1.20	1.69	-0.15	1.10
P43243 1xPhospho [T150]	MATR3 T150	Cancer_only	-1.23	1.82	-0.15	0.47
Q13523 2xPhospho [S230;S232]	PRPF4B S230;S232	Cancer_only	-1.15	1.56	-0.16	0.05
Q9Y6D5 2xPhospho [S348;S349]	ARFGEF2 S348;S349	Cancer_only	1.18	1.64	-0.16	0.13
Q14693 2xPhospho [S187;S188]	LPIN1 S187;S188	Cancer_only	1.44	1.76	-0.16	0.03
Q96JG9 1xPhospho [S1140]	ZNF469 S1140	Cancer_only	-2.51	1.45	-0.16	0.03
P20290 1xPhospho [T182]	BTF3 T182	Cancer_only	1.38	1.78	-0.16	0.05
Q9UPN3 1xPhospho [T5327]	MACF1 T5327	Cancer_only	-1.48	1.48	-0.16	0.05
P28749 1xPhospho [T369]	RBL1 T369	Cancer_only	-2.50	1.66	-0.17	0.04
Q16706 1xPhospho [S80]	MAN2A1 S80	Cancer_only	-1.25	1.50	-0.17	0.10
Q96AE4 1xPhospho [T153]	FUBP1 T153	Cancer_only	1.02	1.50	-0.17	0.84
Q12888 1xPhospho [S1113]	TP53BP1 S1113	Cancer_only	-1.20	1.59	-0.17	0.03
O75410 1xPhospho [S91]	TACC1 S91	Cancer_only	-1.80	1.94	-0.17	0.13
Q6KC79 [365-402]	NIPBL 365-402	Cancer_only	-1.67	1.79	-0.18	0.04
Q9NSY1 1xPhospho [S715]	BMP2K S715	Cancer_only	-1.96	2.10	-0.18	0.16
Q14995 [240-250]	NR1D2 240-250	Cancer_only	1.06	2.00	-0.18	0.24
P58317 1xPhospho [S91]	ZNF121 S91	Cancer_only	-1.10	1.40	-0.18	0.12
Q96T58 2xPhospho [S1268;S1278]	SPEN S1268;S1278	Cancer_only	-1.10	2.96	-0.19	0.12

Q9H5J0 1xPhospho [S362]	ZBTB3 S362	Cancer_only	1.11	2.53	-0.19	0.11
Q8IW50 2xPhospho [T113;S115]	FAM219A T113;S115	Cancer_only	-1.07	1.40	-0.20	0.18
P07195 1xPhospho [S44]	LDHB S44	Cancer_only	2.82	1.49	-0.20	0.18
Q13085 1xPhospho [S2343]	ACACA S2343	Cancer_only	-2.21	1.42	-0.21	0.51
Q96CB8 [420-433]	INTS12 420-433	Cancer_only	-1.08	1.33	-0.21	0.41
Q9Y4A0 1xPhospho [S461]	JRKL S461	Cancer_only	1.08	1.76	-0.21	0.44
Q03164 2xPhospho [S1837;T1845]	KMT2A S1837;T1845	Cancer_only	-1.69	1.50	-0.21	0.20
Q7Z333 1xPhospho [S1366]	SETX S1366	Cancer_only	-3.73	1.46	-0.21	0.74
Q9Y3S1 1xPhospho [S1150]	WNK2 S1150	Cancer_only	1.19	1.97	-0.21	0.06
P46821 1xPhospho [S1427]	MAP1B S1427	Cancer_only	1.05	1.97	-0.21	0.04
Q14126 1xPhospho [S782]	DSG2 S782	Cancer_only	-1.10	1.54	-0.22	0.62
Q9UPU5 1xPhospho [S1943]	USP24 S1943	Cancer_only	2.16	1.74	-0.22	0.07
Q9NY61 2xPhospho [S320;S321]	AATF S320;S321	Cancer_only	-1.19	2.16	-0.22	0.31
Q9HCG8 1xPhospho [S61]	CWC22 S61	Cancer_only	-1.09	1.71	-0.22	1.74
Q8N1W1 1xPhospho [S535]	ARHGEF28 S535	Cancer_only	-1.85	2.03	-0.23	0.21
Q9Y6R4 1xPhospho [S1228]	MAP3K4 S1228	Cancer_only	-1.67	1.52	-0.23	0.18
P49756 1xPhospho [S703]	RBM25 S703	Cancer_only	1.18	2.64	-0.24	0.39
P08670 1xPhospho [S438]	VIM S438	Cancer_only	-2.09	1.49	-0.24	0.05
Q14644 1xPhospho [S90]	RASA3 S90	Cancer_only	-1.21	2.02	-0.24	0.20
Q13620 [58-73]	CUL4B 58-73	Cancer_only	-1.48	1.81	-0.25	0.06
Q9H6F5 1xPhospho [S102]	CCDC86 S102	Cancer_only	-2.20	1.55	-0.25	0.15
Q9NYV4 2xPhospho [S323;S325]	CDK12 S323;S325	Cancer_only	1.54	1.50	-0.25	0.15
P10451 1xPhospho [S219]	SPP1 S219	Cancer_only	-1.32	2.54	-0.25	0.17

Q6KC79 2xPhospho [S1150;S1154]	NIPBL S1150;S1154	Cancer_only	-1.07	2.27	-0.25	0.14
Q8TCT9 1xPhospho [S367]	HM13 S367	Cancer_only	-1.57	2.06	-0.25	0.08
Q9NRL2 1xPhospho [T731]	BAZ1A T731	Cancer_only	-1.02	1.49	-0.26	0.19
Q5JSZ5 1xPhospho [S556]	PRRC2B S556	Cancer_only	-1.34	1.31	-0.26	0.21
Q14966 1xPhospho [S605]	ZNF638 S605	Cancer_only	-1.46	1.61	-0.26	0.06
Q04637 2xPhospho [S1187;S1194]	EIF4G1 S1187;S1194	Cancer_only	-2.44	1.39	-0.26	0.28
O00220 1xPhospho [S424]	TNFRSF10A S424	Cancer_only	-1.63	2.38	-0.26	0.30
P51003 2xPhospho [S545;S553]	PAPOLA S545;S553	Cancer_only	1.76	1.85	-0.27	0.53
Q96LD4 1xPhospho [S588]	TRIM47 S588	Cancer_only	1.06	2.08	-0.27	0.12
P23528 1xPhospho [T25]	CFL1 T25	Cancer_only	2.08	1.71	-0.27	0.06
Q9NP84 [108-129]	TNFRSF12A 108-129	Cancer_only	-1.98	1.51	-0.27	0.73
Q8N8S7 1xPhospho [S477]	ENAH S477	Cancer_only	1.49	1.91	-0.28	0.16
Q9Y6A5 1xPhospho [S317]	TACC3 S317	Cancer_only	-1.55	1.33	-0.28	0.79
Q3KR37 1xPhospho [S274]	GRAMD1B S274	Cancer_only	-1.61	1.54	-0.28	0.23
Q9Y2G0 1xPhospho [S216]	EFR3B S216	Cancer_only	-1.46	2.05	-0.28	0.57
Q96QE3 1xPhospho [S306]	ATAD5 S306	Cancer_only	-1.12	1.76	-0.28	0.41
Q14103 1xPhospho [S190]	HNRNPD S190	Cancer_only	1.16	1.56	-0.29	0.10
Q8WUM9 2xPhospho [S265;S]	SLC20A1 S265;S	Cancer_only	-1.89	1.59	-0.29	0.27
Q8TB72 1xPhospho [S82]	PUM2 S82	Cancer_only	1.20	1.55	-0.29	0.44
Q9GZR2 1xPhospho [S419]	REXO4 S419	Cancer_only	-1.34	1.69	-0.29	0.44
A6NMK8 1xPhospho [S100]	FAM196B S100	Cancer_only	-1.21	1.89	-0.29	0.10
Q9Y6M5 1xPhospho [T449]	SLC30A1 T449	Cancer_only	-1.41	1.62	-0.30	0.37
P07355 1xPhospho [S184]	ANXA2 S184	Cancer_only	-1.89	1.56	-0.30	0.78

Q14686 1xPhospho [S1809]	NCOA6 S1809	Cancer_only	-1.50	1.60	-0.30	0.95
P06744 1xPhospho [S107]	GPI S107	Cancer_only	1.65	1.87	-0.30	0.25
Q7Z3B3 1xPhospho [S827]	KANSL1 S827	Cancer_only	2.29	1.88	-0.30	1.37
Q9H6H4 1xPhospho [S194]	REEP4 S194	Cancer_only	2.11	1.34	-0.31	0.14
Q9NQS7 1xPhospho [S275]	INCENP S275	Cancer_only	-1.78	1.83	-0.31	0.06
Q9BXP5 1xPhospho [S570]	SRRT S570	Cancer_only	1.69	1.34	-0.31	0.69
Q58WW2 1xPhospho [T292]	DCAF6 T292	Cancer_only	-1.49	3.01	-0.32	1.37
Q99442 2xPhospho [T155;T158]	SEC62 T155;T158	Cancer_only	-1.07	2.79	-0.32	0.42
Q9NPE2 1xPhospho [S41]	NGRN S41	Cancer_only	-2.00	1.39	-0.32	0.49
Q8NB49 1xPhospho [S445]	ATP11C S445	Cancer_only	-1.61	1.33	-0.32	0.16
P78332 [897-929]	RBM6 897-929	Cancer_only	1.17	3.41	-0.32	0.07
O43719 1xPhospho [S676]	HTATSF1 S676	Cancer_only	1.15	2.27	-0.32	0.48
Q9UHR4 2xPhospho [T257;S261]	BAIAP2L1 T257;S261	Cancer_only	-1.48	1.49	-0.32	0.24
O60610 [1253-1265]	DIAPH1 1253-1265	Cancer_only	1.02	1.38	-0.32	0.19
Q5VWG9 1xPhospho [T433]	TAF3 T433	Cancer_only	-1.06	1.77	-0.32	0.17
Q8IYD8 1xPhospho [S832]	FANCM S832	Cancer_only	-1.35	1.55	-0.33	0.51
Q7LBC6 1xPhospho [S289]	KDM3B S289	Cancer_only	-1.94	1.51	-0.33	0.20
Q641Q2 [613-640]	FAM21A 613-640	Cancer_only	-2.12	1.73	-0.33	0.07
Q9Y4E1 [613-640]	FAM21C 613-640	Cancer_only	-2.12	1.73	-0.33	0.07
P49761 1xPhospho [S283]	CLK3 S283	Cancer_only	-1.81	2.75	-0.33	0.85
Q15311 2xPhospho [S29;S34]	RALBP1 S29;S34	Cancer_only	1.86	1.37	-0.34	1.52
Q99708 1xPhospho [T315]	RBBP8 T315	Cancer_only	-1.71	1.57	-0.34	0.52
Q14168 2xPhospho [T141;S145]	MPP2 T141;S145	Cancer_only	-1.06	1.61	-0.35	0.70

Q9NRZ9 1xPhospho [S503]	HELLS S503	Cancer_only	-2.60	2.36	-0.35	0.08
Q15642 2xPhospho [S296;S/T]	TRIP10 S296;S/T	Cancer_only	1.53	1.79	-0.35	0.47
Q13619 1xPhospho [S10]	CUL4A S10	Cancer_only	-1.28	2.43	-0.35	0.08
Q15652 1xPhospho [S1989]	JMJD1C S1989	Cancer_only	-2.98	1.35	-0.35	0.17
P35367 1xPhospho [S230]	HRH1 S230	Cancer_only	1.09	3.04	-0.36	0.34
O14495 1xPhospho [S19]	PPAP2B S19	Cancer_only	-1.42	1.32	-0.36	0.47
Q6PL18 1xPhospho [S1139]	ATAD2 S1139	Cancer_only	-2.13	1.54	-0.36	0.27
Q9P1Y6 1xPhospho [S177]	PHRF1 S177	Cancer_only	-2.62	1.61	-0.37	0.14
Q9Y6M7 2xPhospho [S400;S403]	SLC4A7 S400;S403	Cancer_only	-1.32	1.74	-0.37	0.11
O00567 1xPhospho [S570]	NOP56 S570	Cancer_only	-1.13	1.41	-0.38	2.55
P49796 1xPhospho [S806]	RGS3 S806	Cancer_only	-1.97	1.62	-0.38	0.21
Q09666 1xPhospho [S5214]	AHNAK S5214	Cancer_only	-1.94	1.63	-0.38	0.12
O75494 1xPhospho [S213]	SRSF10 S213	Cancer_only	-1.95	1.34	-0.38	0.65
Q8IY18 2xPhospho [T10;S12]	SMC5 T10;S12	Cancer_only	-1.56	2.18	-0.39	0.42
Q96N06 [93-110]	SPATA33 93-110	Cancer_only	-1.67	1.34	-0.39	0.40
Q9H694 1xPhospho [S633]	BICC1 S633	Cancer_only	-1.57	1.96	-0.39	0.46
Q86VM9 1xPhospho [S67]	ZC3H18 S67	Cancer_only	-1.25	1.35	-0.39	0.83
P53355 1xPhospho [T427]	DAPK1 T427	Cancer_only	-1.12	1.35	-0.40	0.20
Q96ST2 2xPhospho [S313;S315]	IWS1 S313;S315	Cancer_only	-3.48	1.44	-0.40	0.11
P28290 1xPhospho [S767]	SSFA2 S767	Cancer_only	-1.16	1.61	-0.40	0.99
Q7L1Q6 1xPhospho [S411]	BZW1 S411	Cancer_only	2.01	1.70	-0.41	0.13
Q15149 1xPhospho [T3785]	PLEC T3785	Cancer_only	-1.45	1.78	-0.41	0.76
P13807 2xPhospho [S641;S645]	GYS1 S641;S645	Cancer_only	1.81	1.82	-0.41	0.40

Q9BY89 1xPhospho [S1224]	KIAA1671 S1224	Cancer_only	-1.16	1.45	-0.41	1.03
Q86SQ7 1xPhospho [S92]	SDCCAG8 S92	Cancer_only	1.29	2.66	-0.42	0.99
O75475 1xPhospho [S347]	PSIP1 S347	Cancer_only	-2.29	1.66	-0.42	0.06
Q9Y385 1xPhospho [S266]	UBE2J1 S266	Cancer_only	-1.17	1.43	-0.42	0.72
O75691 1xPhospho [T1741]	UTP20 T1741	Cancer_only	-1.83	1.39	-0.43	0.31
P48634 1xPhospho [S1671]	PRRC2A S1671	Cancer_only	-1.22	1.61	-0.43	0.19
Q15811 1xPhospho [S315]	ITSN1 S315	Cancer_only	-1.17	1.78	-0.43	0.26
O94854 1xPhospho [S458]	KIAA0754 S458	Cancer_only	-1.79	2.71	-0.43	0.28
Q13425 2xPhospho [S222;S233]	SNTB2 S222;S233	Cancer_only	-1.26	1.46	-0.43	1.82
Q8N2Y8 1xPhospho [S559]	RUSC2 S559	Cancer_only	1.52	2.63	-0.44	0.35
P30838 1xPhospho [S446]	ALDH3A1 S446	Cancer_only	1.34	1.95	-0.44	0.88
P52756 1xPhospho [S59]	RBM5 S59	Cancer_only	-1.94	1.45	-0.44	0.11
Q14684 1xPhospho [S245]	RRP1B S245	Cancer_only	-1.06	1.48	-0.44	0.77
Q92823 1xPhospho [S1271]	NRCAM S1271	Cancer_only	-2.11	1.35	-0.44	0.82
P30530 [508-523]	AXL 508-523	Cancer_only	-1.71	1.52	-0.45	0.44
Q96JN0 1xPhospho [S249]	LCOR S249	Cancer_only	-1.59	1.93	-0.45	0.17
Q8NG31 1xPhospho [S956]	CASC5 S956	Cancer_only	-1.47	1.51	-0.46	0.31
Q14669 1xPhospho [S1016]	TRIP12 S1016	Cancer_only	-1.45	1.35	-0.46	0.93
O60315 [137-150]	ZEB2 137-150	Cancer_only	-1.83	1.31	-0.46	0.17
Q9H4L7 2xPhospho [S211;S214]	SMARCAD1 S211;S214	Cancer_only	-2.14	1.50	-0.47	0.26
Q8IZQ1 1xPhospho [S3335]	WDFY3 S3335	Cancer_only	-1.21	1.56	-0.47	0.39
Q15149 1xPhospho [S3036]	PLEC S3036	Cancer_only	1.32	1.93	-0.47	0.89

O00472 1xPhospho [S305]	ELL2 S305	Cancer_only	-4.04	1.97	-0.47	0.23
Q6IQ23 1xPhospho [S1022]	PLEKHA7 S1022	Cancer_only	1.18	1.56	-0.47	0.19
Q7Z333 2xPhospho [S1017;S1019]	SETX S1017;S1019	Cancer_only	-1.19	1.99	-0.47	0.38
Q12830 1xPhospho [S2370]	BPTF S2370	Cancer_only	-1.56	1.73	-0.48	0.24
Q9H7D0 1xPhospho [S1287]	DOCK5 S1287	Cancer_only	-1.54	1.48	-0.49	0.16
Q14669 1xPhospho [S312]	TRIP12 S312	Cancer_only	-1.42	1.44	-0.49	0.76
Q9UH99 1xPhospho [S38]	SUN2 S38	Cancer_only	-1.70	1.69	-0.49	0.95
Q9H8M2 1xPhospho [T103]	BRD9 T103	Cancer_only	-1.76	1.30	-0.50	0.14
P50851 1xPhospho [T1039]	LRBA T1039	Cancer_only	-1.51	1.59	-0.50	0.41
Q8WWQ0 1xPhospho [S911]	PHIP S911	Cancer_only	-1.52	1.38	-0.50	0.48
Q9H2Y7 1xPhospho [S1026]	ZNF106 S1026	Cancer_only	-2.11	1.62	-0.50	0.33
Q9BV36 1xPhospho [S337]	MLPH S337	Cancer_only	-2.64	1.58	-0.50	0.26
Q9Y6J0 2xPhospho [T2151;T2154]	CABIN1 T2151;T2154	Cancer_only	-1.13	1.36	-0.50	0.50
P18621 1xPhospho [S14]	RPL17 S14	Cancer_only	2.87	1.40	-0.50	0.08
Q9H6F5 1xPhospho [S18]	CCDC86 S18	Cancer_only	-1.00	1.63	-0.51	0.50
Q16513 1xPhospho [S360]	PKN2 S360	Cancer_only	-1.18	2.40	-0.51	0.88
Q9NYV4 2xPhospho [S343;S345]	CDK12 S343;S345	Cancer_only	2.02	1.37	-0.51	1.11
Q9NQC3 1xPhospho [S107]	RTN4 S107	Cancer_only	-1.07	1.40	-0.51	0.63
P46100 2xPhospho [S849;S850]	ATRX S849;S850	Cancer_only	-1.06	3.34	-0.52	0.63
Q9BXW9 1xPhospho [S1412]	FANCD2 S1412	Cancer_only	-1.04	1.83	-0.52	0.91
Q14690 1xPhospho [S1498]	PDCD11 S1498	Cancer_only	-2.29	1.35	-0.52	0.31
O43166 1xPhospho [S1528]	SIPA1L1 S1528	Cancer_only	-2.48	1.49	-0.52	0.20
Q8WVM7 1xPhospho [S1062]	STAG1 S1062	Cancer_only	-1.55	1.53	-0.53	0.60

Q8TEM1 1xPhospho [T1844]	NUP210 T1844	Cancer_only	-1.20	1.67	-0.53	0.21
O00327 1xPhospho [S42]	ARNTL S42	Cancer_only	-3.01	2.36	-0.53	0.22
P51587 1xPhospho [S1818]	BRCA2 S1818	Cancer_only	-5.16	1.36	-0.53	0.15
Q6KC79 1xPhospho [T599]	NIPBL T599	Cancer_only	-1.36	1.48	-0.54	0.37
Q15648 1xPhospho [T805]	MED1 T805	Cancer_only	-1.22	2.01	-0.54	0.44
O43439 1xPhospho [S577]	CBFA2T2 S577	Cancer_only	-1.65	1.44	-0.54	1.85
P46100 2xPhospho [S1348;S1352]	ATRX S1348;S1352	Cancer_only	-1.89	1.60	-0.54	0.27
O14920 1xPhospho [S672]	IKBKB S672	Cancer_only	1.27	1.37	-0.54	0.14
Q15022 1xPhospho [S546]	SUZ12 S546	Cancer_only	-1.18	1.41	-0.55	0.50
Q03112 1xPhospho [S726]	MECOM S726	Cancer_only	-1.32	1.95	-0.55	0.43
Q9BXB4 1xPhospho [T27]	OSBPL11 T27	Cancer_only	1.12	1.34	-0.56	0.60
Q5VZL5 1xPhospho [S122]	ZMYM4 S122	Cancer_only	-1.45	2.40	-0.56	1.74
Q9P275 1xPhospho [S871]	USP36 S871	Cancer_only	-1.96	1.40	-0.56	0.25
Q8WXI9 1xPhospho [S135]	GATAD2B S135	Cancer_only	-1.04	1.33	-0.56	0.74
P29374 1xPhospho [S651]	ARID4A S651	Cancer_only	-1.22	1.37	-0.56	0.24
Q9H2H9 1xPhospho [T17]	SLC38A1 T17	Cancer_only	-2.24	3.81	-0.57	0.33
Q96PV6 1xPhospho [S351]	LENG8 S351	Cancer_only	-1.57	1.50	-0.57	0.48
Q15652 1xPhospho [S641]	JMJD1C S641	Cancer_only	-1.70	1.97	-0.57	0.25
Q9H582 1xPhospho [S1189]	ZNF644 S1189	Cancer_only	-2.72	1.33	-0.57	0.16
P48681 1xPhospho [S934]	NES S934	Cancer_only	-1.26	1.33	-0.58	1.27
Q13873 1xPhospho [S681]	BMPR2 S681	Cancer_only	-1.13	2.73	-0.58	0.30
Q01167 1xPhospho [S170]	FOXK2 S170	Cancer_only	-1.57	1.81	-0.58	1.41
Q8NEZ4 1xPhospho [S4267]	KMT2C S4267	Cancer_only	-1.06	1.35	-0.59	0.20

Q09666 1xPhospho [S5448]	AHNAK S5448	Cancer_only	-1.37	1.72	-0.59	0.38
Q8TEP8 1xPhospho [S2110]	CEP192 S2110	Cancer_only	-2.39	1.73	-0.59	0.42
Q8NI27 1xPhospho [T1285]	THOC2 T1285	Cancer_only	-1.28	1.33	-0.59	0.18
P42696 2xPhospho [S14;S28]	RBM34 S14;S28	Cancer_only	-3.52	1.49	-0.59	0.23
Q9Y5X2 2xPhospho [T450;S456]	SNX8 T450;S456	Cancer_only	1.94	1.74	-0.59	0.39
Q9P0K7 1xPhospho [S327]	RAI14 S327	Cancer_only	2.22	1.56	-0.59	0.65
Q70CQ2 1xPhospho [T3381]	USP34 T3381	Cancer_only	-1.90	1.31	-0.60	0.24
Q7Z6E9 1xPhospho [S1179]	RBBP6 S1179	Cancer_only	-1.04	1.73	-0.60	0.75
Q68E01 1xPhospho [S1042]	INTS3 S1042	Cancer_only	-2.07	2.57	-0.60	0.26
P33527 1xPhospho [S199]	ABCC1 S199	Cancer_only	-1.95	1.54	-0.60	0.72
Q8IWB9 1xPhospho [S458]	TEX2 S458	Cancer_only	-1.39	1.32	-0.60	0.29
P01106 2xPhospho [S347;S348]	MYC S347;S348	Cancer_only	-1.60	1.43	-0.60	0.21
O95071 1xPhospho [S2241]	UBR5 S2241	Cancer_only	-1.16	1.55	-0.60	0.45
P28288 1xPhospho [S40]	ABCD3 S40	Cancer_only	-1.40	2.37	-0.60	0.29
Q8NDI1 1xPhospho [S171]	EHBP1 S171	Cancer_only	1.68	1.42	-0.60	0.11
O95235 1xPhospho [S532]	KIF20A S532	Cancer_only	1.19	1.74	-0.61	0.44
O60293 1xPhospho [T766]	ZFC3H1 T766	Cancer_only	-1.98	1.46	-0.61	0.46
Q12830 1xPhospho [S719]	BPTF S719	Cancer_only	-1.36	1.50	-0.61	0.48
Q9UQ35 1xPhospho [S1483]	SRRM2 S1483	Cancer_only	-1.31	1.30	-0.61	0.73
Q8WYB5 1xPhospho [S1303]	KAT6B S1303	Cancer_only	-1.43	2.73	-0.62	0.54
Q86SQ0 1xPhospho [S204]	PHLDB2 S204	Cancer_only	-1.53	2.10	-0.63	0.32
Q63HR2 1xPhospho [S1003]	TNS2 S1003	Cancer_only	1.72	1.41	-0.63	0.80
Q9Y618 [908-934]	NCOR2 908-934	Cancer_only	-2.10	1.42	-0.63	0.48

Q70CQ2 1xPhospho [S3358]	USP34 S3358	Cancer_only	-2.09	2.59	-0.64	0.45
O15234 2xPhospho [S117;S125]	CASC3 S117;S125	Cancer_only	1.15	1.82	-0.64	0.79
O94854 1xPhospho [S77]	KIAA0754 S77	Cancer_only	-1.51	1.65	-0.64	1.26
Q9UKV3 1xPhospho [S710]	ACIN1 S710	Cancer_only	-1.17	2.89	-0.64	0.63
Q9UHB7 1xPhospho [S1043]	AFF4 S1043	Cancer_only	-1.84	1.66	-0.64	1.51
Q8NBJ4 1xPhospho [S191]	GOLM1 S191	Cancer_only	1.34	1.36	-0.64	0.32
O75976 2xPhospho [T1368;T1370]	CPD T1368;T1370	Cancer_only	-1.88	1.57	-0.64	0.28
Q14669 [932-945]	TRIP12 932-945	Cancer_only	-1.70	1.67	-0.64	0.85
P48681 1xPhospho [S578]	NES S578	Cancer_only	-1.63	1.65	-0.64	0.69
Q5BKX8 1xPhospho [T336]	MURC T336	Cancer_only	-1.70	1.88	-0.65	0.61
Q9UHB7 1xPhospho [S680]	AFF4 S680	Cancer_only	-1.08	1.34	-0.65	0.47
Q9Y3T9 2xPhospho [S49;S]	NOC2L S49;S	Cancer_only	-1.60	1.52	-0.65	0.54
Q9Y4W2 1xPhospho [S238]	LAS1L S238	Cancer_only	-1.07	1.86	-0.66	0.52
Q13243 1xPhospho [S153]	SRSF5 S153	Cancer_only	-1.19	1.73	-0.66	0.31
P62070 1xPhospho [S186]	RRAS2 S186	Cancer_only	-1.15	1.33	-0.66	0.42
Q9P219 1xPhospho [S2011]	CCDC88C S2011	Cancer_only	-1.13	1.63	-0.67	0.61
Q9Y3T9 1xPhospho [S672]	NOC2L S672	Cancer_only	-1.61	1.52	-0.67	1.57
Q13111 1xPhospho [S775]	CHAF1A S775	Cancer_only	-1.43	2.50	-0.68	0.60
Q9UHB7 1xPhospho [S706]	AFF4 S706	Cancer_only	-1.41	2.05	-0.68	0.43
Q9H4G0 1xPhospho [S639]	EPB41L1 S639	Cancer_only	2.37	2.71	-0.68	0.42
P15408 1xPhospho [S230]	FOSL2 S230	Cancer_only	-1.37	1.54	-0.68	1.26
P43007 [502-528]	SLC1A4 502-528	Cancer_only	-1.91	1.84	-0.69	1.09
P25054 1xPhospho [S2449]	APC S2449	Cancer_only	-3.28	1.88	-0.69	0.31

Q13242 2xPhospho [S193;S195]	SRSF9 S193;S195	Cancer_only	-1.35	1.66	-0.70	0.30
Q9UHW9 1xPhospho [S36]	SLC12A6 S36	Cancer_only	-1.03	1.54	-0.70	1.25
Q99684 1xPhospho [S56]	GFI1 S56	Cancer_only	-2.13	1.35	-0.70	0.15
P46100 2xPhospho [T977;S978]	ATRX T977;S978	Cancer_only	-1.22	1.35	-0.70	0.49
P55265 1xPhospho [S825]	ADAR S825	Cancer_only	-1.22	1.40	-0.70	0.57
Q96RT1 1xPhospho [S603]	ERBB2IP S603	Cancer_only	-1.58	2.59	-0.70	0.64
Q9NR19 2xPhospho [S28;S30]	ACSS2 S28;S30	Cancer_only	-2.20	1.61	-0.70	0.44
Q9UHB7 1xPhospho [S620]	AFF4 S620	Cancer_only	-1.17	1.30	-0.70	1.12
P11388 1xPhospho [S1374]	TOP2A S1374	Cancer_only	-1.52	1.42	-0.71	0.34
Q7Z333 1xPhospho [S947]	SETX S947	Cancer_only	-3.27	1.41	-0.71	0.24
P46087 1xPhospho [S732]	NOP2 S732	Cancer_only	-1.53	1.75	-0.71	0.79
P51826 1xPhospho [S881]	AFF3 S881	Cancer_only	-1.43	1.37	-0.71	1.01
Q9H6F5 2xPhospho [S66;S69]	CCDC86 S66;S69	Cancer_only	-2.81	1.95	-0.72	0.38
Q8N556 2xPhospho [S679;S682]	AFAP1 S679;S682	Cancer_only	-1.35	1.32	-0.72	0.91
Q9UBW7 1xPhospho [T1376]	ZMYM2 T1376	Cancer_only	-2.59	1.42	-0.72	0.43
Q9H9J4 1xPhospho [S936]	USP42 S936	Cancer_only	-2.05	1.31	-0.72	1.05
Q96T37 1xPhospho [S622]	RBM15 S622	Cancer_only	-4.29	1.37	-0.72	0.15
P78524 1xPhospho [S465]	ST5 S465	Cancer_only	-2.24	3.39	-0.72	0.19
Q14966 1xPhospho [S1656]	ZNF638 S1656	Cancer_only	-2.47	4.12	-0.73	0.25
Q6KC79 1xPhospho [S318]	NIPBL S318	Cancer_only	-1.61	1.73	-0.73	0.67
P38398 1xPhospho [S1542]	BRCA1 S1542	Cancer_only	-1.50	1.71	-0.73	0.42
Q6NT04 1xPhospho [S357]	TIGD7 S357	Cancer_only	1.93	1.40	-0.73	0.49
P51587 1xPhospho [S93]	BRCA2 S93	Cancer_only	-1.93	1.69	-0.73	1.15

Q92922 1xPhospho [S822]	SMARCC1 S822	Cancer_only	-1.05	1.61	-0.73	0.47
Q5QJE6 2xPhospho [S397;S/T]	DNTTIP2 S397;S/T	Cancer_only	-1.25	1.45	-0.73	0.20
O76021 1xPhospho [S443]	RSL1D1 S443	Cancer_only	-2.50	1.41	-0.74	0.27
O43493 1xPhospho [S210]	TGOLN2 S210	Cancer_only	-1.26	1.58	-0.74	0.24
O60291 [457-469]	MGRN1 457-469	Cancer_only	-2.30	1.63	-0.74	0.63
Q9P275 1xPhospho [S682]	USP36 S682	Cancer_only	-1.30	1.51	-0.75	1.36
Q9BXK1 2xPhospho [S234;T/S]	KLF16 S234;T/S	Cancer_only	-1.00	3.14	-0.75	0.88
P46013 1xPhospho [T1719]	MKI67 T1719	Cancer_only	1.41	1.54	-0.75	0.80
P78316 1xPhospho [S96]	NOP14 S96	Cancer_only	-1.80	1.61	-0.75	0.77
Q70CQ2 2xPhospho [S2488;S2503]	USP34 S2488;S2503	Cancer_only	-3.09	1.63	-0.75	1.06
Q9UEY8 1xPhospho [S650]	ADD3 S650	Cancer_only	-1.19	1.45	-0.76	0.39
Q9P1Y6 [1355-1368]	PHRF1 1355-1368	Cancer_only	-1.59	1.44	-0.76	0.85
Q2KHR2 1xPhospho [S321]	RFX7 S321	Cancer_only	-2.48	1.61	-0.76	0.78
Q9H6X2 1xPhospho [S362]	ANTXR1 S362	Cancer_only	-1.71	1.77	-0.76	0.36
Q6T4R5 1xPhospho [T997]	NHS T997	Cancer_only	-1.03	1.80	-0.76	1.37
Q9BZ95 1xPhospho [S590]	WHSC1L1 S590	Cancer_only	-1.47	3.66	-0.76	0.35
Q9BSA4 2xPhospho [S504;S510]	TTYH2 S504;S510	Cancer_only	-1.05	1.79	-0.76	0.62
Q63HR2 1xPhospho [S102]	TNS2 S102	Cancer_only	1.81	1.73	-0.76	0.16
Q14690 1xPhospho [S36]	PDCD11 S36	Cancer_only	-2.43	1.62	-0.77	0.38
O75190 1xPhospho [S15]	DNAJB6 S15	Cancer_only	-1.72	2.88	-0.77	0.84
Q9Y2K7 1xPhospho [S28]	KDM2A S28	Cancer_only	-1.17	1.45	-0.77	0.82
Q09666 [5834-5858]	AHNAK 5834-5858	Cancer_only	-1.42	2.16	-0.77	0.37
Q76FK4 [1097-1108]	NOL8 1097-1108	Cancer_only	-1.73	2.68	-0.77	2.55

Q13416 1xPhospho [T116]	ORC2 T116	Cancer_only	-1.47	2.12	-0.77	1.00
Q9Y2X3 2xPhospho [S502;S514]	NOP58 S502;S514	Cancer_only	-1.30	2.32	-0.78	0.88
Q8TD19 1xPhospho [S978]	NEK9 S978	Cancer_only	1.29	1.40	-0.79	0.19
Q9NRG9 1xPhospho [S495]	AAAS S495	Cancer_only	-1.21	1.37	-0.80	0.80
Q3L8U1 2xPhospho [S1468;S1472]	CHD9 S1468;S1472	Cancer_only	-2.47	1.81	-0.80	0.43
Q86YS7 2xPhospho [S284;T285]	C2CD5 S284;T285	Cancer_only	-1.30	1.60	-0.80	0.94
Q14966 1xPhospho [S1913]	ZNF638 S1913	Cancer_only	-1.50	1.39	-0.80	0.63
Q15751 1xPhospho [S1328]	HERC1 S1328	Cancer_only	-1.15	1.80	-0.80	1.16
P10301 1xPhospho [S201]	RRAS S201	Cancer_only	-1.31	1.90	-0.81	2.10
O60292 1xPhospho [S1534]	SIPA1L3 S1534	Cancer_only	-2.50	1.54	-0.81	0.21
Q9H2Y7 1xPhospho [S1370]	ZNF106 S1370	Cancer_only	-1.34	1.67	-0.82	0.68
O96028 [405-425]	WHSC1 405-425	Cancer_only	-2.98	1.31	-0.82	0.55
Q9P275 1xPhospho [S18]	USP36 S18	Cancer_only	-1.91	2.11	-0.82	0.90
P35398 1xPhospho [S49]	RORA S49	Cancer_only	2.19	2.70	-0.82	0.09
Q5FWF4 1xPhospho [S569]	ZRANB3 S569	Cancer_only	-2.85	1.31	-0.83	0.38
P05023 1xPhospho [S47]	ATP1A1 S47	Cancer_only	-1.09	1.69	-0.83	0.68
Q15652 1xPhospho [S2053]	JMJD1C S2053	Cancer_only	-1.17	1.48	-0.83	0.48
O75376 1xPhospho [S999]	NCOR1 S999	Cancer_only	-1.43	1.50	-0.83	0.46
P29375 1xPhospho [S1111]	KDM5A S1111	Cancer_only	-1.07	1.51	-0.83	1.38
Q05519 2xPhospho [S366;S368]	SRSF11 S366;S368	Cancer_only	-1.01	1.32	-0.83	0.67
Q9H1A4 1xPhospho [S688]	ANAPC1 S688	Cancer_only	-1.22	1.73	-0.83	0.40
Q76N32 1xPhospho [S435]	CEP68 S435	Cancer_only	-1.44	1.79	-0.84	0.29
Q9Y2H6 1xPhospho [S213]	FNDC3A S213	Cancer_only	-1.43	1.35	-0.84	0.59

Q9Y4W2 1xPhospho [S560]	LAS1L S560	Cancer_only	-1.25	1.69	-0.84	0.35
Q9BS31 1xPhospho [S75]	ZNF649 S75	Cancer_only	-1.55	1.30	-0.84	0.34
Q12888 2xPhospho [S784;S786]	TP53BP1 S784;S786	Cancer_only	-2.14	2.68	-0.84	0.69
A8CG34 1xPhospho [T424]	POM121C T424	Cancer_only	-1.24	1.30	-0.85	0.42
Q96HA1 1xPhospho [T447]	POM121 T447	Cancer_only	-1.24	1.30	-0.85	0.42
Q13330 1xPhospho [T564]	MTA1 T564	Cancer_only	-1.31	1.32	-0.85	0.28
Q15582 1xPhospho [S649]	TGFBI S649	Cancer_only	-3.18	1.79	-0.86	0.25
O14686 1xPhospho [T1843]	KMT2D T1843	Cancer_only	-1.45	1.37	-0.86	1.37
Q3V6T2 1xPhospho [S1675]	CCDC88A S1675	Cancer_only	-1.79	1.35	-0.86	0.62
Q8WYP5 1xPhospho [T1369]	AHCTF1 T1369	Cancer_only	-1.38	1.98	-0.86	0.61
P01106 [53-65]	MYC 53-65	Cancer_only	-2.04	1.58	-0.86	0.43
O75151 1xPhospho [S539]	PHF2 S539	Cancer_only	-1.24	1.38	-0.86	0.85
P18583 2xPhospho [S1782;S1783]	SON S1782;S1783	Cancer_only	-1.30	1.39	-0.87	0.98
P82094 1xPhospho [S170]	TMF1 S170	Cancer_only	-1.14	2.37	-0.87	0.91
Q9Y5J1 2xPhospho [S206;S210]	UTP18 S206;S210	Cancer_only	-2.70	1.67	-0.87	1.49
Q9UHV7 1xPhospho [S395]	MED13 S395	Cancer_only	-2.06	1.88	-0.87	0.26
Q96QD8 2xPhospho [S19;S/Y/T]	SLC38A2 S19;S/Y/T	Cancer_only	-2.17	1.81	-0.87	0.20
O95239 2xPhospho [S810;S815]	KIF4A S810;S815	Cancer_only	-1.02	1.47	-0.87	1.41
Q9H0A0 1xPhospho [S934]	NAT10 S934	Cancer_only	-1.36	1.39	-0.88	0.52
Q8IVF2 1xPhospho [S4185]	AHNAK2 S4185	Cancer_only	-1.97	1.84	-0.88	0.28
Q8WVM7 [1-32]	STAG1 1-32	Cancer_only	-2.33	3.11	-0.88	0.77
Q02880 2xPhospho [S1400;S1424]	TOP2B S1400;S1424	Cancer_only	-1.37	1.74	-0.88	0.58
Q96PN7 1xPhospho [S715]	TRERF1 S715	Cancer_only	-1.33	1.70	-0.88	0.29

P46013 1xPhospho [S357]	MKI67 S357	Cancer_only	-2.24	1.38	-0.88	0.37
P61619 1xPhospho [S408]	SEC61A1 S408	Cancer_only	-2.96	2.28	-0.88	0.25
O14646 2xPhospho [S215;S216]	CHD1 S215;S216	Cancer_only	-1.33	1.55	-0.89	1.03
P22392 1xPhospho [Y52]	NME2 Y52	Cancer_only	1.74	1.84	-0.89	0.12
Q9NU22 1xPhospho [T4898]	MDN1 T4898	Cancer_only	-1.88	1.67	-0.90	0.42
Q03164 1xPhospho [S1858]	KMT2A S1858	Cancer_only	-2.46	1.63	-0.90	0.23
Q4LE39 2xPhospho [S790;T793]	ARID4B S790;T793	Cancer_only	-1.55	1.83	-0.91	0.65
Q9NQU5 2xPhospho [S346;S351]	PAK6 S346;S351	Cancer_only	-1.60	1.33	-0.91	0.33
P46013 1xPhospho [S1679]	MKI67 S1679	Cancer_only	-3.09	1.34	-0.91	0.18
Q12849 1xPhospho [S244]	GRSF1 S244	Cancer_only	-2.36	1.97	-0.91	0.36
Q1KMD3 2xPhospho [T165;S168]	HNRNPUL2 T165;S168	Cancer_only	-1.11	2.36	-0.92	0.63
Q9P241 1xPhospho [S977]	ATP10D S977	Cancer_only	-1.40	1.86	-0.92	1.52
A6H8Y1 1xPhospho [T915]	BDP1 T915	Cancer_only	-1.06	1.74	-0.92	0.57
Q6IAA8 1xPhospho [S56]	LAMTOR1 S56	Cancer_only	-1.34	1.35	-0.92	0.32
Q5C9Z4 2xPhospho [S280;T287]	NOM1 S280;T287	Cancer_only	-2.23	1.42	-0.93	1.58
Q3L8U1 1xPhospho [S654]	CHD9 S654	Cancer_only	-1.82	2.27	-0.93	0.46
Q6N043 1xPhospho [S806]	ZNF280D S806	Cancer_only	-2.08	2.03	-0.94	0.76
Q9UPV0 1xPhospho [S359]	CEP164 S359	Cancer_only	-1.74	1.68	-0.94	0.21
Q8IZT6 1xPhospho [S425]	ASPM S425	Cancer_only	-1.29	1.74	-0.94	1.13
Q6ZUT6 1xPhospho [S193]	C15orf52 S193	Cancer_only	-1.58	1.50	-0.95	0.39
Q6P0N0 1xPhospho [S824]	MIS18BP1 S824	Cancer_only	-1.93	1.54	-0.95	0.42
Q9UHV7 2xPhospho [T326;T/S]	MED13 T326;T/S	Cancer_only	-1.04	3.13	-0.95	1.18
Q96AY2 2xPhospho [S111;S]	EME1 S111;S	Cancer_only	-1.88	1.52	-0.96	0.40

Q14541 1xPhospho [S121]	HNF4G S121	Cancer_only	-1.84	1.37	-0.96	0.37
Q86YN6 2xPhospho [S384;S390]	PPARGC1B S384;S390	Cancer_only	-1.28	2.04	-0.96	0.31
Q9HDC5 2xPhospho [S162;S165]	JPH1 S162;S165	Cancer_only	-2.09	2.27	-0.97	0.41
Q12770 1xPhospho [S851]	SCAP S851	Cancer_only	-1.56	1.46	-0.97	0.38
O95072 1xPhospho [S286]	REC8 S286	Cancer_only	-2.81	2.02	-0.97	0.52
Q8TBF4 1xPhospho [S216]	ZCRB1 S216	Cancer_only	-1.71	1.34	-0.97	0.82
Q9UQ35 2xPhospho [S1423;S1424]	SRRM2 S1423;S1424	Cancer_only	-1.86	1.44	-0.98	0.62
Q9NWH9 1xPhospho [S543]	SLTM S543	Cancer_only	-1.08	1.52	-0.98	0.64
Q86TM6 1xPhospho [S613]	SYVN1 S613	Cancer_only	-1.42	2.14	-0.98	0.91
O60292 2xPhospho [S171;S172]	SIPA1L3 S171;S172	Cancer_only	-2.08	1.95	-0.98	0.45
O60292 1xPhospho [S1254]	SIPA1L3 S1254	Cancer_only	-2.89	1.47	-0.98	0.24
Q96RT1 [1298-1312]	ERBB2IP 1298-1312	Cancer_only	-1.62	1.69	-0.99	0.53
Q5UIP0 1xPhospho [S1974]	RIF1 S1974	Cancer_only	-1.47	2.74	-0.99	0.80
Q9Y2H5 1xPhospho [S777]	PLEKHA6 S777	Cancer_only	-1.17	1.43	-0.99	1.23
Q96RT1 2xPhospho [S704;S/T]	ERBB2IP S704;S/T	Cancer_only	-1.47	1.39	-0.99	0.64
Q5UIP0 1xPhospho [S2144]	RIF1 S2144	Cancer_only	-2.20	1.61	-0.99	0.75
Q8WYB5 1xPhospho [S445]	KAT6B S445	Cancer_only	-1.59	1.89	-0.99	0.67
Q92794 1xPhospho [S420]	KAT6A S420	Cancer_only	-1.59	1.89	-0.99	0.67
P15407 [251-271]	FOSL1 251-271	Cancer_only	-1.92	1.30	-0.99	0.42
O15417 1xPhospho [S999]	TNRC18 S999	Cancer_only	-1.67	1.73	-0.99	0.32
O14827 1xPhospho [S727]	RASGRF2 S727	Cancer_only	-1.01	2.01	-1.00	0.35
O14647 1xPhospho [S1365]	CHD2 S1365	Cancer_only	-2.20	2.32	-1.00	0.97
P29374 1xPhospho [S1109]	ARID4A S1109	CAF_only	-1.46	0.70	-1.00	1.60

Q9UHB7 1xPhospho [S222]	AFF4 S222	CAF_only	-1.40	0.98	-1.01	1.47
Q99569 1xPhospho [S221]	PKP4 S221	Cancer_only	-1.62	1.78	-1.01	0.86
P32241 1xPhospho [S441]	VIPR1 S441	CAF_only	-1.82	0.87	-1.01	1.70
Q9NSY1 1xPhospho [T1000]	BMP2K T1000	CAF_only	-0.92	0.75	-1.01	2.75
Q96B33 1xPhospho [S204]	CLDN23 S204	Cancer_only	1.50	1.31	-1.01	0.22
Q9P219 1xPhospho [S1584]	CCDC88C S1584	CAF_only	-1.08	0.81	-1.01	1.47
O75385 2xPhospho [S477;S479]	ULK1 S477;S479	CAF_only	-1.73	0.62	-1.01	1.57
Q9BXY0 2xPhospho [S197;S/T]	MAK16 S197;S/T	Cancer_only	-2.06	1.45	-1.02	0.82
Q9HA65 1xPhospho [T620]	TBC1D17 T620	CAF_only	0.11	0.31	-1.02	2.94
Q13625 1xPhospho [S121]	TP53BP2 S121	CAF_only	-1.63	0.81	-1.02	1.90
Q8WYP5 1xPhospho [S1295]	AHCTF1 S1295	Cancer_only	-1.45	1.88	-1.02	0.37
P51587 1xPhospho [S2095]	BRCA2 S2095	Cancer_only	-1.42	1.58	-1.02	0.87
Q9UHV7 1xPhospho [S890]	MED13 S890	Cancer_only	-1.24	1.45	-1.02	0.69
O14686 1xPhospho [S1671]	KMT2D S1671	Cancer_only	-2.92	2.33	-1.02	0.41
Q6Y7W6 2xPhospho [S26;S30]	GIGYF2 S26;S30	Cancer_only	-1.92	1.35	-1.02	0.30
P01130 1xPhospho [S286]	LDLR S286	Cancer_only	-3.04	1.45	-1.02	0.32
O15213 1xPhospho [S41]	WDR46 S41	Cancer_and_CAF	-2.34	1.72	-1.02	1.89
Q9UHB7 2xPhospho [S839;S/T]	AFF4 S839;S/T	Cancer_only	-3.38	1.38	-1.02	0.47
Q9C0H5 1xPhospho [S690]	ARHGAP39 S690	CAF_only	-0.91	0.30	-1.02	1.71
Q12923 1xPhospho [S345]	PTPN13 S345	Cancer_only	-3.14	1.31	-1.03	0.37
O60264 1xPhospho [S116]	SMARCA5 S116	Cancer_only	-2.45	2.03	-1.03	0.52
P15822 1xPhospho [S130]	HIVEP1 S130	Cancer_only	-2.26	1.96	-1.03	0.40
Q9UQ35 2xPhospho [S1598;S1600]	SRRM2 S1598;S1600	Cancer_only	-1.83	1.87	-1.03	0.78

Q92793 1xPhospho [S1043]	CREBBP S1043	Cancer_only	-1.29	1.38	-1.03	0.40
Q9BT81 1xPhospho [S166]	SOX7 S166	Cancer_only	-2.09	1.61	-1.03	0.48
Q7Z589 1xPhospho [S1134]	EMSY S1134	CAF_only	-1.19	1.07	-1.03	1.51
Q9Y4X4 1xPhospho [S42]	KLF12 S42	Cancer_only	1.32	1.49	-1.03	1.12
Q8NCN4 1xPhospho [S693]	RNF169 S693	Cancer_only	-1.53	1.38	-1.03	0.36
Q8TDD1 1xPhospho [S644]	DDX54 S644	Cancer_only	-1.55	1.47	-1.03	0.88
Q8NFC6 1xPhospho [S482]	BOD1L1 S482	CAF_only	-0.25	0.51	-1.03	1.72
Q8IVF2 1xPhospho [S5741]	AHNAK2 S5741	CAF_only	-2.33	1.29	-1.03	1.56
P46100 [971-983]	ATRX 971-983	Cancer_only	-1.65	2.58	-1.03	1.22
Q6PKG0 1xPhospho [T788]	LARP1 T788	Cancer_and_CAF	-2.57	1.47	-1.03	1.89
Q70CQ2 1xPhospho [T3350]	USP34 T3350	Cancer_only	-2.55	2.21	-1.04	0.56
Q99081 1xPhospho [S540]	TCF12 S540	Cancer_only	-2.29	1.38	-1.04	0.34
P05412 1xPhospho [S243]	JUN S243	CAF_only	-0.96	0.90	-1.04	1.53
O15417 1xPhospho [S1069]	TNRC18 S1069	Cancer_only	-1.12	1.46	-1.04	1.03
Q86U86 2xPhospho [S501;S502]	PBRM1 S501;S502	Cancer_only	-2.80	1.81	-1.04	0.45
Q03164 1xPhospho [T337]	KMT2A T337	Cancer_only	-2.19	1.39	-1.04	0.54
Q96GQ7 1xPhospho [S79]	DDX27 S79	CAF_only	-1.22	0.98	-1.04	1.67
Q9Y2W1 1xPhospho [S253]	THRAP3 S253	CAF_only	0.38	0.78	-1.04	1.40
Q5T8D3 1xPhospho [T181]	ACBD5 T181	CAF_only	-1.22	0.34	-1.04	1.77
P46013 1xPhospho [S308]	MKI67 S308	Cancer_and_CAF	-1.21	1.55	-1.05	2.91
Q96T58 [2139-2167]	SPEN 2139-2167	Cancer_only	-1.08	1.97	-1.05	1.22
Q3T8J9 1xPhospho [S1339]	GON4L S1339	Cancer_only	-3.50	1.73	-1.05	0.60
Q9BUZ4 1xPhospho [S426]	TRAF4 S426	CAF_only	-0.12	0.09	-1.05	2.81

O60293 1xPhospho [S1303]	ZFC3H1 S1303	Cancer_only	-3.37	1.35	-1.05	0.45
Q92823 1xPhospho [S1254]	NRCAM S1254	CAF_only	-2.44	0.59	-1.06	1.72
Q9Y6M7 1xPhospho [S91]	SLC4A7 S91	Cancer_only	-2.33	1.39	-1.06	0.45
O43166 1xPhospho [S1433]	SIPA1L1 S1433	Cancer_only	-1.27	1.40	-1.06	0.57
Q9H7N4 2xPhospho [S872;S874]	SCAF1 S872;S874	Cancer_only	-2.47	1.54	-1.06	0.92
O43567 1xPhospho [T380]	RNF13 T380	CAF_only	-0.73	0.78	-1.06	1.38
Q9UHB6 1xPhospho [S230]	LIMA1 S230	CAF_only	-1.37	0.76	-1.06	1.51
Q86UE4 1xPhospho [S478]	MTDH S478	Cancer_only	-1.15	1.83	-1.06	0.89
Q9H6F5 2xPhospho [S80;S91]	CCDC86 S80;S91	CAF_only	-2.66	1.12	-1.06	1.50
Q9Y2F5 1xPhospho [T1620]	ICE1 T1620	Cancer_only	-2.42	1.32	-1.06	0.98
Q8WVM8 1xPhospho [S303]	SCFD1 S303	Cancer_and_CAF	-1.18	1.36	-1.06	2.17
Q9UQ35 1xPhospho [T2599]	SRRM2 T2599	Cancer_only	-1.88	2.05	-1.06	0.69
Q9NVH0 1xPhospho [S407]	EXD2 S407	CAF_only	-1.30	1.02	-1.06	1.43
O94782 1xPhospho [S475]	USP1 S475	Cancer_only	-2.82	3.05	-1.07	0.61
Q99590 1xPhospho [S338]	SCAF11 S338	Cancer_only	-1.33	2.62	-1.07	1.02
Q15361 1xPhospho [S487]	TTF1 S487	CAF_only	-0.01	0.01	-1.07	1.31
Q15758 1xPhospho [S493]	SLC1A5 S493	Cancer_only	-2.03	2.73	-1.07	1.09
Q96JG9 [2313-2347]	ZNF469 2313-2347	Cancer_only	-3.25	2.59	-1.07	0.85
Q9C0C2 2xPhospho [S592;S601]	TNKS1BP1 S592;S601	CAF_only	0.75	0.40	-1.07	1.56
Q12923 2xPhospho [S1082;S]	PTPN13 S1082;S	Cancer_only	-1.41	1.33	-1.07	0.66
Q9BXY0 2xPhospho [S229;S232]	MAK16 S229;S232	Cancer_only	-1.13	1.33	-1.08	0.64
Q9H2Y7 1xPhospho [S1328]	ZNF106 S1328	Cancer_and_CAF	-1.89	1.67	-1.08	1.40
Q9UEG4 1xPhospho [S745]	ZNF629 S745	CAF_only	-0.54	0.32	-1.08	1.37

Q13029 1xPhospho [S643]	PRDM2 S643	CAF_only	-0.73	1.69	-1.08	1.31
Q9P209 1xPhospho [S237]	CEP72 S237	CAF_only	-1.38	0.88	-1.08	2.37
Q8NEJ9 1xPhospho [S142]	NGDN S142	CAF_only	-1.92	0.91	-1.08	1.73
O95425 1xPhospho [S673]	SVIL S673	Cancer_only	-1.95	1.71	-1.08	1.02
P29374 1xPhospho [S1031]	ARID4A S1031	CAF_only	-0.60	1.75	-1.08	3.68
Q96KR1 1xPhospho [S1054]	ZFR S1054	CAF_only	-0.88	0.61	-1.08	1.78
O94929 2xPhospho [S280;S282]	ABLIM3 S280;S282	CAF_only	-0.22	0.25	-1.08	1.32
P38398 2xPhospho [S1191;S/T/Y]	BRCA1 S1191;S/T/Y	CAF_only	-1.82	0.75	-1.08	1.63
Q12906 1xPhospho [S190]	ILF3 S190	CAF_only	-0.69	0.45	-1.09	1.46
Q9Y2F5 1xPhospho [S960]	ICE1 S960	Cancer_and_CAF	-2.22	1.40	-1.09	1.35
Q9NQS3 1xPhospho [S465]	PVRL3 S465	Cancer_only	-1.05	1.47	-1.09	0.48
P29374 [266-293]	ARID4A 266-293	Cancer_only	-2.07	1.37	-1.09	0.98
O60716 1xPhospho [S214]	CTNND1 S214	CAF_only	-0.12	0.60	-1.09	2.60
P48681 1xPhospho [S702]	NES S702	Cancer_only	-1.23	1.46	-1.09	0.39
Q96T37 1xPhospho [S109]	RBM15 S109	CAF_only	-0.72	0.74	-1.09	2.69
Q13428 2xPhospho [S1228;S1230]	TCOF1 S1228;S1230	CAF_only	-1.36	1.06	-1.10	1.96
Q7Z3B3 1xPhospho [S249]	KANSL1 S249	Cancer_and_CAF	-1.62	1.34	-1.10	2.30
Q9NUA8 1xPhospho [S190]	ZBTB40 S190	CAF_only	-0.74	0.41	-1.10	1.57
P47914 1xPhospho [S158]	RPL29 S158	Cancer_only	-1.66	1.31	-1.10	0.51
ENST00000497454_NCI-H1792_Mis:G626V 1xPhospho [S761]	RGL2 S761	Cancer_only	1.08	1.86	-1.10	1.04
O15211 1xPhospho [S761]	RGL2 S761	Cancer_only	1.08	1.86	-1.10	1.04
P55198 2xPhospho [T373;S/Y]	MLLT6 T373;S/Y	Cancer_only	-1.40	1.74	-1.10	0.43

Q15751 1xPhospho [S1521]	HERC1 S1521	CAF_only	-0.88	1.04	-1.10	2.96
Q9NWV8 2xPhospho [T65;S66]	BABAM1 T65;S66	CAF_only	-0.63	0.28	-1.10	1.84
Q8WVM7 1xPhospho [S53]	STAG1 S53	Cancer_only	-1.90	1.31	-1.11	0.51
O95453 2xPhospho [S619;S623]	PARN S619;S623	Cancer_only	-2.73	1.40	-1.11	0.61
Q15293 1xPhospho [S234]	RCN1 S234	CAF_only	-0.53	0.21	-1.12	1.30
Q9NQS7 1xPhospho [S119]	INCENP S119	Cancer_only	-1.44	1.39	-1.12	0.60
Q9NSI2 1xPhospho [T34]	FAM207A T34	Cancer_only	-2.29	1.61	-1.12	0.37
Q9H2Y7 1xPhospho [S1279]	ZNF106 S1279	Cancer_only	-2.25	1.36	-1.12	0.62
Q9UIS9 2xPhospho [S391;S399]	MBD1 S391;S399	CAF_only	-0.13	0.37	-1.12	1.60
Q9BXK1 1xPhospho [S109]	KLF16 S109	CAF_only	-0.80	1.14	-1.12	2.54
Q9NR48 1xPhospho [S884]	ASH1L S884	CAF_only	-0.90	0.44	-1.13	1.34
Q6IQ19 1xPhospho [S80]	CCSAP S80	Cancer_only	-1.03	1.46	-1.13	1.13
Q9Y6M5 [167-203]	SLC30A1 167-203	Cancer_only	-1.10	1.66	-1.13	0.70
Q99547 1xPhospho [T147]	MPHOSPH6 T147	CAF_only	-1.16	1.23	-1.13	1.56
Q14684 1xPhospho [S513]	RRP1B S513	CAF_only	-1.81	1.27	-1.13	1.95
Q9NQ55 1xPhospho [S399]	PPAN S399	Cancer_only	-3.04	1.53	-1.13	0.44
Q68DK7 1xPhospho [S205]	MSL1 S205	CAF_only	-0.64	0.86	-1.14	2.41
Q14137 [118-133]	BOP1 118-133	CAF_only	-0.72	1.02	-1.14	2.48
A0FGR8 2xPhospho [S691;S693]	ESYT2 S691;S693	Cancer_only	-1.83	1.38	-1.14	0.97
P11388 1xPhospho [S1393]	TOP2A S1393	Cancer_only	-2.28	1.57	-1.14	0.44
Q9Y2X3 1xPhospho [T34]	NOP58 T34	Cancer_only	-1.27	1.44	-1.14	0.32
Q9ULD4 2xPhospho [S965;S]	BRPF3 S965;S	CAF_only	-0.60	0.18	-1.15	1.33
Q5C9Z4 1xPhospho [S280]	NOM1 S280	CAF_only	-0.87	0.98	-1.15	1.58

Q15652 1xPhospho [S379]	JMJD1C S379	CAF_only	-1.89	0.95	-1.15	1.45
Q07157 2xPhospho [S166;S168]	TJP1 S166;S168	CAF_only	-2.01	1.02	-1.15	2.07
P19338 1xPhospho [S356]	NCL S356	Cancer_only	-1.37	1.35	-1.15	0.54
Q9HD20 1xPhospho [S899]	ATP13A1 S899	Cancer_only	-1.58	1.79	-1.16	0.60
P49792 2xPhospho [T2504;T/S]	RANBP2 T2504;T/S	Cancer_only	-1.33	2.88	-1.16	1.27
O43159 1xPhospho [S104]	RRP8 S104	CAF_only	-0.27	0.28	-1.16	1.80
Q68DK7 1xPhospho [T386]	MSL1 T386	Cancer_only	-1.79	2.21	-1.17	0.90
Q12888 1xPhospho [S1430]	TP53BP1 S1430	CAF_only	-1.41	0.87	-1.17	2.28
Q9BWT1 1xPhospho [S190]	CDCA7 S190	Cancer_only	-3.57	1.55	-1.17	0.97
O75475 2xPhospho [T122;T/S]	PSIP1 T122;T/S	CAF_only	-0.83	0.53	-1.17	1.80
Q15326 2xPhospho [S377;S/T]	ZMYND11 S377;S/T	CAF_only	-1.51	0.53	-1.17	1.64
O94986 1xPhospho [S1461]	CEP152 S1461	Cancer_only	-2.58	1.85	-1.17	0.38
Q14004 1xPhospho [T871]	CDK13 T871	Cancer_only	-1.55	1.31	-1.17	0.48
Q07955 2xPhospho [S201;S205]	SRSF1 S201;S205	Cancer_only	-1.42	1.41	-1.17	0.62
Q14160 2xPhospho [S1437;S1439]	SCRIB S1437;S1439	CAF_only	-0.60	0.39	-1.17	1.33
Q9H0D6 1xPhospho [S475]	XRN2 S475	CAF_only	-1.07	0.60	-1.17	1.73
P46087 1xPhospho [T185]	NOP2 T185	CAF_only	-1.28	0.93	-1.18	1.33
Q9Y5S2 [352-378]	CDC42BPB 352-378	CAF_only	-1.00	0.64	-1.18	1.57
Q14839 2xPhospho [S1535;S1537]	CHD4 S1535;S1537	CAF_only	-1.23	0.45	-1.18	1.76
Q99590 1xPhospho [S569]	SCAF11 S569	CAF_only	0.24	0.07	-1.18	1.85
Q9UKV3 1xPhospho [S1161]	ACIN1 S1161	Cancer_only	-2.20	1.42	-1.18	0.62
Q14151 1xPhospho [S233]	SAFB2 S233	CAF_only	-1.06	0.93	-1.18	1.83
Q15424 1xPhospho [S234]	SAFB S234	CAF_only	-1.06	0.93	-1.18	1.83

Q8NDV7 1xPhospho [S739]	TNRC6A S739	CAF_only	0.22	0.08	-1.18	2.23
Q9BY89 1xPhospho [S1019]	KIAA1671 S1019	CAF_only	-1.11	1.06	-1.19	1.35
O00767 1xPhospho [S198]	SCD S198	Cancer_only	-3.19	1.80	-1.19	0.49
Q7Z2Z1 1xPhospho [T1134]	TICRR T1134	Cancer_only	-1.21	1.50	-1.19	0.38
Q9UMN6 1xPhospho [S2348]	KMT2B S2348	Cancer_and_CAF	-1.33	1.98	-1.19	1.52
Q14692 [629-646]	BMS1 629-646	Cancer_only	-1.28	1.45	-1.20	0.79
Q8N3A8 1xPhospho [S127]	PARP8 S127	CAF_only	-1.69	0.99	-1.20	1.88
P85037 1xPhospho [S445]	FOXK1 S445	CAF_only	-0.89	0.90	-1.20	1.99
Q96J84 2xPhospho [S683;T/S/Y]	KIRREL S683;T/S/Y	Cancer_and_CAF	-1.16	1.76	-1.20	1.50
Q9UQ35 2xPhospho [S1443;S1444]	SRRM2 S1443;S1444	Cancer_only	-1.34	3.02	-1.20	0.53
Q96L73 1xPhospho [S1510]	NSD1 S1510	Cancer_only	-2.52	1.46	-1.21	0.82
O60264 1xPhospho [S755]	SMARCA5 S755	CAF_only	-1.85	0.55	-1.21	1.77
P28370 1xPhospho [S770]	SMARCA1 S770	CAF_only	-1.85	0.55	-1.21	1.77
P46100 2xPhospho [S1992;S/T/Y]	ATRX S1992;S/T/Y	CAF_only	-1.33	0.62	-1.21	2.04
Q16643 1xPhospho [S134]	DBN1 S134	Cancer_only	-1.91	1.70	-1.21	1.06
Q56NI9 1xPhospho [S512]	ESCO2 S512	CAF_only	-0.21	0.33	-1.21	1.69
Q9H792 1xPhospho [S1217]	PEAK1 S1217	Cancer_only	-2.01	1.61	-1.21	0.37
Q9ULH0 1xPhospho [S1555]	KIDINS220 S1555	Cancer_only	-1.97	2.48	-1.21	0.67
Q12923 1xPhospho [S2032]	PTPN13 S2032	Cancer_only	-2.52	2.23	-1.21	1.02
Q13112 2xPhospho [T432;T433]	CHAF1B T432;T433	CAF_only	-1.49	1.09	-1.21	2.37
Q641Q2 2xPhospho [S352;S356]	FAM21A S352;S356	CAF_only	-7.72	0.67	-1.22	1.46
Q9Y4E1 2xPhospho [S352;S356]	FAM21C S352;S356	CAF_only	-7.72	0.67	-1.22	1.46
Q9Y4H2 2xPhospho [T520;T527]	IRS2 T520;T527	Cancer_only	-1.18	2.82	-1.22	0.87

Q6PIJ6 [904-923]	FBXO38 904-923	CAF_only	-1.18	0.25	-1.22	1.77
Q6W2J9 1xPhospho [S423]	BCOR S423	Cancer_only	-1.38	1.48	-1.23	0.75
Q92922 1xPhospho [T398]	SMARCC1 T398	Cancer_only	-2.55	1.79	-1.23	0.63
O60264 1xPhospho [S825]	SMARCA5 S825	CAF_only	-0.89	0.41	-1.23	1.57
P78316 1xPhospho [S146]	NOP14 S146	CAF_only	-1.00	2.73	-1.24	2.09
Q12830 1xPhospho [S1231]	BPTF S1231	CAF_only	-1.60	0.85	-1.24	1.44
O96028 1xPhospho [T544]	WHSC1 T544	Cancer_only	-2.05	1.50	-1.24	0.69
Q6PL18 [734-766]	ATAD2 734-766	Cancer_only	-2.61	2.63	-1.24	0.50
O94972 1xPhospho [S797]	TRIM37 S797	CAF_only	-1.99	0.59	-1.25	1.92
O15400 1xPhospho [T79]	STX7 T79	CAF_only	-0.74	0.45	-1.25	1.83
Q24JP5 1xPhospho [S529]	TMEM132A S529	CAF_only	-0.87	0.64	-1.25	1.36
Q8IWI9 1xPhospho [S1328]	MGA S1328	Cancer_only	-1.82	2.28	-1.25	1.08
P48551 1xPhospho [S400]	IFNAR2 S400	Cancer_and_CAF	-1.27	1.36	-1.26	1.64
Q7Z333 1xPhospho [S2612]	SETX S2612	Cancer_only	-1.83	1.91	-1.26	0.44
Q14676 1xPhospho [T1526]	MDC1 T1526	Cancer_only	-1.11	1.35	-1.26	0.49
Q8TBE0 1xPhospho [S184]	BAHD1 S184	CAF_only	0.11	0.20	-1.26	1.32
Q8NEZ4 1xPhospho [S4034]	KMT2C S4034	Cancer_only	-2.54	2.01	-1.27	0.26
Q9NVM9 1xPhospho [S626]	ASUN S626	Cancer_only	-1.12	1.32	-1.27	0.74
Q9HD67 1xPhospho [S1148]	MYO10 S1148	CAF_only	-0.07	0.05	-1.27	1.42
Q9UGH3 2xPhospho [S78;S81]	SLC23A2 S78;S81	CAF_only	-0.51	0.71	-1.27	1.32
Q9Y4E8 2xPhospho [S961;S/T]	USP15 S961;S/T	Cancer_only	1.03	1.57	-1.27	0.64
P25054 1xPhospho [S130]	APC S130	Cancer_only	-1.47	5.39	-1.27	0.74
Q13428 1xPhospho [S1350]	TCOF1 S1350	Cancer_and_CAF	-1.34	1.34	-1.28	1.52

Q9NPF5 2xPhospho [T409;S412]	DMAP1 T409;S412	Cancer_only	-3.09	2.05	-1.28	0.48
Q9H2Y7 1xPhospho [S661]	ZNF106 S661	Cancer_only	-3.32	1.61	-1.28	0.48
O15446 1xPhospho [S285]	CD3EAP S285	Cancer_only	-1.44	1.63	-1.28	1.16
Q8N0Y2 1xPhospho [S232]	ZNF444 S232	CAF_only	-1.38	0.56	-1.29	1.45
O00712 [262-270]	NFIB 262-270	CAF_only	-0.21	0.32	-1.29	2.87
O43493 1xPhospho [S71]	TGOLN2 S71	Cancer_only	-3.50	1.60	-1.29	0.35
P01106 1xPhospho [S348]	MYC S348	Cancer_only	-1.46	1.32	-1.29	0.68
Q9NRR5 1xPhospho [S114]	UBQLN4 S114	CAF_only	0.41	0.68	-1.29	1.35
Q5VUA4 1xPhospho [S527]	ZNF318 S527	Cancer_only	-1.43	1.55	-1.29	0.84
P05412 [57-70]	JUN 57-70	Cancer_only	-3.18	1.74	-1.29	0.49
Q15149 2xPhospho [S4385;S4386]	PLEC S4385;S4386	Cancer_only	-1.28	2.33	-1.30	0.39
Q8IX21 1xPhospho [S317]	FAM178A S317	Cancer_only	-1.51	1.48	-1.30	0.75
A7XYQ1 1xPhospho [S629]	SOBP S629	Cancer_only	1.50	1.89	-1.30	1.23
Q01831 1xPhospho [S515]	XPC S515	CAF_only	-0.74	0.77	-1.30	1.57
O15027 1xPhospho [S1964]	SEC16A S1964	Cancer_and_CAF	-1.84	2.08	-1.31	1.33
Q8NFC6 1xPhospho [S2954]	BOD1L1 S2954	Cancer_only	-2.35	2.92	-1.31	0.68
Q9UBW7 1xPhospho [S112]	ZMYM2 S112	Cancer_only	-2.39	1.94	-1.31	0.60
Q12789 1xPhospho [S1062]	GTF3C1 S1062	CAF_only	-2.77	1.07	-1.31	1.33
P20020 1xPhospho [S1127]	ATP2B1 S1127	CAF_only	-3.33	0.46	-1.31	1.74
O00220 1xPhospho [S466]	TNFRSF10A S466	Cancer_only	-2.28	1.36	-1.31	1.25
Q9H5J8 1xPhospho [S40]	TAF1D S40	Cancer_only	-1.46	1.45	-1.32	0.85
Q9UHD8 1xPhospho [T42]	SEPTIN9 T42	Cancer_only	-1.29	1.39	-1.32	0.45
P35659 1xPhospho [S306]	DEK S306	CAF_only	-0.68	0.18	-1.33	1.83

Q9H7F0 1xPhospho [S817]	ATP13A3 S817	Cancer_and_CAF	-2.04	2.15	-1.33	1.64
Q8N5F7 1xPhospho [S178]	NKAP S178	Cancer_only	-2.09	1.44	-1.33	0.48
Q13352 1xPhospho [S60]	ITGB3BP S60	Cancer_only	-1.56	2.07	-1.33	0.94
P35790 1xPhospho [S416]	CHKA S416	Cancer_and_CAF	-1.31	2.39	-1.33	1.48
O75691 1xPhospho [T2064]	UTP20 T2064	CAF_only	-1.24	0.43	-1.33	1.78
Q9BRR8 1xPhospho [S6]	GPATCH1 S6	CAF_only	-0.20	1.08	-1.34	1.41
Q9H501 1xPhospho [S657]	ESF1 S657	CAF_only	-1.18	1.15	-1.34	1.73
Q9H6F5 1xPhospho [S160]	CCDC86 S160	Cancer_only	-1.91	2.17	-1.34	0.71
Q9Y6E2 1xPhospho [S412]	BZW2 S412	CAF_only	0.53	0.13	-1.34	1.72
Q2KHR2 1xPhospho [S202]	RFX7 S202	Cancer_only	-2.02	1.62	-1.35	0.83
Q13948 1xPhospho [S562]	CUX1 S562	CAF_only	-0.90	1.07	-1.35	2.04
O43493 1xPhospho [S224]	TGOLN2 S224	Cancer_only	-2.73	1.55	-1.35	0.40
Q8WWQ0 2xPhospho [S1281;S1283]	PHIP S1281;S1283	Cancer_only	-2.98	2.40	-1.36	0.81
Q8TED9 1xPhospho [S329]	AFAP1L1 S329	Cancer_only	-3.42	1.78	-1.36	0.59
Q9UMN6 2xPhospho [T2068;S2070]	KMT2B T2068;S2070	Cancer_only	-2.72	1.35	-1.37	1.22
O94986 1xPhospho [T1241]	CEP152 T1241	CAF_only	-0.71	0.50	-1.37	1.32
Q9P270 1xPhospho [S147]	SLAIN2 S147	CAF_only	-1.25	1.14	-1.37	2.76
Q8N3V7 1xPhospho [S580]	SYNPO S580	CAF_only	-0.83	0.42	-1.37	2.12
Q9H7L9 1xPhospho [S234]	SUDS3 S234	CAF_only	-0.81	0.41	-1.37	1.36
Q9BYW2 1xPhospho [S708]	SETD2 S708	CAF_only	-0.32	0.37	-1.37	2.34
Q00341 1xPhospho [S944]	HDLBP S944	CAF_only	-3.71	0.57	-1.37	1.89
Q8N556 1xPhospho [S679]	AFAP1 S679	Cancer_only	-2.98	1.44	-1.37	0.92
P10243 1xPhospho [S7]	MYBL1 S7	Cancer_only	-2.73	1.41	-1.38	0.43

Q9UGH3 1xPhospho [S81]	SLC23A2 S81	Cancer_only	-1.90	1.30	-1.38	0.31
Q9ULD2 1xPhospho [S1241]	MTUS1 S1241	CAF_only	-0.47	0.45	-1.38	1.51
Q7Z2Z1 2xPhospho [S838;S841]	TICRR S838;S841	Cancer_only	-1.91	2.16	-1.38	0.45
P07910 [233-250]	HNRNPC 233-250	CAF_only	-1.68	0.81	-1.38	2.37
Q6ZRV2 1xPhospho [S974]	FAM83H S974	Cancer_only	-1.38	2.14	-1.38	1.05
Q09666 1xPhospho [S5110]	AHNAK S5110	Cancer_only	-1.65	1.99	-1.38	0.60
Q9UNF1 1xPhospho [T72]	MAGED2 T72	CAF_only	0.31	0.15	-1.39	1.38
Q7Z2Z1 [1294-1309]	TICRR 1294-1309	Cancer_only	-1.31	1.50	-1.39	0.50
Q9NQS7 2xPhospho [S306;S311]	INCENP S306;S311	CAF_only	0.15	0.05	-1.39	1.47
P49761 2xPhospho [S281;S283]	CLK3 S281;S283	Cancer_only	-2.20	1.44	-1.39	0.77
P42568 1xPhospho [S483]	MLLT3 S483	CAF_only	-1.30	1.29	-1.39	1.57
P49006 1xPhospho [S119]	MARCKSL1 S119	CAF_only	-0.46	0.59	-1.39	1.42
Q96R06 1xPhospho [T352]	SPAG5 T352	CAF_only	-0.16	0.06	-1.39	1.36
Q6WKZ4 1xPhospho [S529]	RAB11FIP1 S529	Cancer_only	-1.48	1.37	-1.40	0.78
Q63HQ0 [196-218]	AP1AR 196-218	CAF_only	-0.34	0.08	-1.40	1.78
O95071 1xPhospho [S2469]	UBR5 S2469	Cancer_only	2.01	1.39	-1.40	0.62
Q14690 1xPhospho [S41]	PDCD11 S41	CAF_only	-1.11	0.90	-1.41	1.42
Q14207 1xPhospho [S1296]	NPAT S1296	Cancer_only	-3.11	1.57	-1.41	0.67
Q8WUA4 1xPhospho [S901]	GTF3C2 S901	Cancer_only	-1.83	1.99	-1.42	0.60
Q29RF7 1xPhospho [S1305]	PDS5A S1305	Cancer_only	-1.62	1.70	-1.42	1.23
Q13428 2xPhospho [S1350;T1358]	TCOF1 S1350;T1358	Cancer_and_CAF	-2.56	1.31	-1.43	1.76
Q15599 1xPhospho [S254]	SLC9A3R2 S254	CAF_only	-0.97	0.46	-1.43	2.25
Q7Z6E9 1xPhospho [T1066]	RBBP6 T1066	Cancer_only	-1.22	1.74	-1.43	1.17

Q12789 2xPhospho [S1865;S1868]	GTF3C1 S1865;S1868	CAF_only	-1.11	0.60	-1.43	1.45
P02545 1xPhospho [S429]	LMNA S429	Cancer_only	-1.71	1.80	-1.43	0.80
P01213 2xPhospho [S125;T/S]	PDYN S125;T/S	CAF_only	-0.65	0.34	-1.43	1.63
Q7RTP6 1xPhospho [S1143]	MICAL3 S1143	CAF_only	-2.05	0.98	-1.43	1.53
O60673 1xPhospho [S1089]	REV3L S1089	Cancer_and_CAF	-1.94	1.85	-1.43	1.38
Q9H5H4 1xPhospho [S97]	ZNF768 S97	CAF_only	-0.72	0.97	-1.43	1.68
Q12834 1xPhospho [S41]	CDC20 S41	CAF_only	0.29	0.26	-1.44	1.33
O14681 2xPhospho [S326;S330]	EI24 S326;S330	Cancer_only	-1.31	1.59	-1.44	0.89
P11171 [555-580]	EPB41 555-580	CAF_only	-1.38	0.45	-1.44	2.53
P25490 [231-258]	YY1 231-258	CAF_only	1.01	0.42	-1.45	1.65
Q8IY81 1xPhospho [S356]	FTSJ3 S356	Cancer_only	-2.37	2.83	-1.45	0.69
Q16625 1xPhospho [S408]	OCLN S408	CAF_only	-1.38	0.80	-1.45	1.32
Q03112 1xPhospho [S62]	MECOM S62	Cancer_and_CAF	-1.78	1.51	-1.45	1.78
P35659 1xPhospho [S232]	DEK S232	CAF_only	-1.53	0.52	-1.45	1.72
Q12983 1xPhospho [T137]	BNIP3 T137	Cancer_only	-3.12	1.44	-1.45	0.36
Q15695 1xPhospho [S389]	ZRSR1 S389	Cancer_only	1.70	1.81	-1.45	0.17
Q92917 1xPhospho [S388]	GPKOW S388	CAF_only	-0.65	0.48	-1.45	2.57
Q96RT1 1xPhospho [S841]	ERBB2IP S841	CAF_only	-0.02	0.41	-1.46	1.31
Q7Z2Z1 1xPhospho [S1001]	TICRR S1001	Cancer_only	-3.08	1.45	-1.46	0.65
Q9H0X9 1xPhospho [S747]	OSBPL5 S747	CAF_only	-0.98	1.31	-1.46	1.94
Q9Y297 1xPhospho [S127]	BTRC S127	CAF_only	-1.99	1.08	-1.46	1.44
O15014 2xPhospho [S605;S609]	ZNF609 S605;S609	CAF_only	0.45	0.10	-1.46	1.64
Q63ZY6 2xPhospho [T258;S260]	NSUN5P2 T258;S260	CAF_only	-1.56	0.80	-1.47	1.31

P48634 1xPhospho [S342]	PRRC2A S342	Cancer_only	-2.22	1.73	-1.47	0.33
Q15361 1xPhospho [S403]	TTF1 S403	CAF_only	-2.07	0.87	-1.47	1.57
Q8WWQ0 1xPhospho [S692]	PHIP S692	Cancer_only	-2.18	1.94	-1.47	0.98
Q76N89 1xPhospho [S919]	HECW1 S919	CAF_only	0.40	0.17	-1.47	1.71
Q13206 1xPhospho [S7]	DDX10 S7	Cancer_only	-2.33	1.33	-1.47	0.76
Q96SK2 1xPhospho [S222]	TMEM209 S222	Cancer_only	-1.83	1.43	-1.48	1.08
Q9GZR1 2xPhospho [S335;S336]	SENP6 S335;S336	Cancer_only	-1.12	1.89	-1.48	0.63
Q03188 1xPhospho [S600]	CENPC S600	CAF_only	-0.78	0.45	-1.49	2.14
Q15652 1xPhospho [S317]	JMJD1C S317	Cancer_only	-1.37	2.04	-1.49	1.13
Q9H6Z4 1xPhospho [T363]	RANBP3 T363	CAF_only	-1.89	0.99	-1.49	2.82
Q13112 1xPhospho [S538]	CHAF1B S538	CAF_only	-0.21	0.30	-1.49	1.73
Q15326 1xPhospho [S378]	ZMYND11 S378	CAF_only	-1.18	0.85	-1.49	1.48
O60264 2xPhospho [S66;S]	SMARCA5 S66;S	CAF_only	-2.83	0.99	-1.49	1.55
P46013 1xPhospho [S1131]	MKI67 S1131	Cancer_only	-1.57	2.13	-1.50	0.51
Q5VUB5 [779-814]	FAM171A1 779-814	CAF_only	0.70	0.57	-1.50	1.74
Q9ULD5 1xPhospho [S47]	ZNF777 S47	CAF_only	-1.29	0.64	-1.50	1.77
O00488 1xPhospho [T134]	ZNF593 T134	CAF_only	-1.62	0.97	-1.51	2.57
Q96SN8 1xPhospho [S1238]	CDK5RAP2 S1238	CAF_only	-1.16	0.28	-1.51	1.65
Q9BQG0 1xPhospho [S1241]	MYBBP1A S1241	Cancer_only	-2.47	2.50	-1.51	0.72
Q5UIP0 1xPhospho [S1616]	RIF1 S1616	CAF_only	-1.69	1.17	-1.52	1.55
A6H8Y1 1xPhospho [T1131]	BDP1 T1131	Cancer_only	-1.33	1.34	-1.52	1.08
P28749 [648-657]	RBL1 648-657	Cancer_and_CAF	-4.43	1.33	-1.53	1.65
Q4AC94 1xPhospho [S466]	C2CD3 S466	CAF_only	-1.97	0.65	-1.53	1.58

Q9BZE4 2xPhospho [S558;S563]	GTPBP4 S558;S563	Cancer_only	-2.13	2.05	-1.53	1.02
Q6ZRS2 2xPhospho [T2425;S2430]	SRCAP T2425;S2430	CAF_only	-1.06	0.96	-1.53	2.06
A1L390 1xPhospho [S827]	PLEKHG3 S827	Cancer_only	-2.56	2.03	-1.53	0.51
Q02224 1xPhospho [S2639]	CENPE S2639	Cancer_and_CAF	-2.93	1.52	-1.53	2.48
Q9NTI5 2xPhospho [T1381;S1383]	PDS5B T1381;S1383	Cancer_only	-1.12	1.36	-1.54	1.05
P78347 1xPhospho [S412]	GTF2I S412	Cancer_only	-2.32	2.40	-1.55	0.86
Q8WYP5 1xPhospho [S1513]	AHCTF1 S1513	Cancer_only	-2.10	1.53	-1.55	0.60
Q6PL18 1xPhospho [T1152]	ATAD2 T1152	Cancer_only	-3.52	1.91	-1.56	0.93
Q9H0H5 1xPhospho [S112]	RACGAP1 S112	CAF_only	-2.26	0.62	-1.56	4.11
P49736 2xPhospho [S41;T/S]	MCM2 S41;T/S	CAF_only	0.64	0.34	-1.57	1.61
Q99459 1xPhospho [T424]	CDC5L T424	CAF_only	-1.55	0.63	-1.57	1.44
Q9H501 1xPhospho [S198]	ESF1 S198	Cancer_only	-2.07	1.34	-1.57	0.80
P20700 2xPhospho [S391;S393]	LMNB1 S391;S393	CAF_only	-5.11	0.41	-1.57	3.84
Q03252 2xPhospho [S405;S407]	LMNB2 S405;S407	CAF_only	-5.11	0.41	-1.57	3.84
Q9BZ95 1xPhospho [S150]	WHSC1L1 S150	CAF_only	-1.53	0.90	-1.58	1.67
Q96QT4 1xPhospho [S1488]	TRPM7 S1488	Cancer_only	-3.70	1.56	-1.58	0.56
Q9H8V3 1xPhospho [S866]	ECT2 S866	Cancer_only	-3.56	1.88	-1.58	0.44
P11387 1xPhospho [Y723]	TOP1 Y723	Cancer_only	2.31	1.75	-1.58	0.80
Q92766 2xPhospho [S1219;S1225]	RREB1 S1219;S1225	Cancer_only	-1.07	1.59	-1.58	0.79
Q12789 2xPhospho [S1062;S1068]	GTF3C1 S1062;S1068	Cancer_only	-1.94	1.97	-1.58	0.99
Q68D86 1xPhospho [S142]	CCDC102B S142	Cancer_only	1.05	2.36	-1.59	0.73
Q9P2G1 1xPhospho [S891]	ANKIB1 S891	CAF_only	-0.62	0.24	-1.60	1.52
Q15652 [369-387]	JMJD1C 369-387	CAF_only	-2.26	0.78	-1.61	1.41

Q969R5 1xPhospho [S13]	L3MBTL2 S13	CAF_only	-0.11	0.31	-1.61	1.94
O00472 1xPhospho [S503]	ELL2 S503	Cancer_only	-2.72	2.15	-1.61	1.07
O15446 [271-288]	CD3EAP 271-288	Cancer_only	-1.89	1.32	-1.62	1.16
Q9H2Y7 [637-648]	ZNF106 637-648	Cancer_only	-3.88	1.83	-1.62	0.39
P51659 1xPhospho [T615]	HSD17B4 T615	CAF_only	0.04	0.02	-1.63	2.26
Q9H2Y7 2xPhospho [S861;S]	ZNF106 S861;S	Cancer_only	-6.11	1.37	-1.63	0.17
Q96GE4 2xPhospho [S419;S422]	CEP95 S419;S422	CAF_only	-0.01	0.00	-1.63	1.58
Q9UIF9 1xPhospho [S1783]	BAZ2A S1783	CAF_only	-1.86	0.97	-1.64	1.45
Q76L83 1xPhospho [S156]	ASXL2 S156	Cancer_only	-1.27	1.71	-1.64	0.44
P07910 1xPhospho [S241]	HNRNPC S241	Cancer_only	-1.79	2.23	-1.64	0.53
Q9H2J7 1xPhospho [S55]	SLC6A15 S55	Cancer_only	-1.95	1.34	-1.65	0.80
Q9P2W9 1xPhospho [S189]	STX18 S189	CAF_only	-1.36	0.78	-1.65	1.34
Q99728 1xPhospho [T299]	BARD1 T299	Cancer_only	-2.78	1.64	-1.65	0.46
P42696 1xPhospho [S90]	RBM34 S90	Cancer_and_CAF	-1.46	2.11	-1.65	2.00
P48681 [831-865]	NES 831-865	Cancer_only	-2.40	1.68	-1.65	0.58
A1L390 1xPhospho [S962]	PLEKHG3 S962	Cancer_only	-2.38	1.33	-1.66	1.00
Q9H330 1xPhospho [S15]	TMEM245 S15	CAF_only	-1.45	0.63	-1.66	1.59
Q9NYF8 2xPhospho [S496;S502]	BCLAF1 S496;S502	Cancer_and_CAF	-1.54	1.40	-1.67	1.33
Q9NTI5 2xPhospho [S1358;S1361]	PDS5B S1358;S1361	Cancer_only	-3.93	1.35	-1.67	0.68
Q9BVI0 1xPhospho [S902]	PHF20 S902	CAF_only	-1.01	0.58	-1.68	1.77
O00566 1xPhospho [T341]	MPHOSPH10 T341	Cancer_only	-1.68	1.41	-1.68	0.28
O75494 1xPhospho [S199]	SRSF10 S199	CAF_only	-0.29	0.34	-1.69	1.76
Q9BWT1 2xPhospho [S104;S106]	CDCA7 S104;S106	CAF_only	-3.03	1.07	-1.70	1.34

Q5T200 2xPhospho [S1455;S1465]	ZC3H13 S1455;S1465	CAF_only	-0.38	0.12	-1.70	1.41
Q13352 2xPhospho [S33;S46]	ITGB3BP S33;S46	CAF_only	-2.37	1.03	-1.71	1.56
Q6NZY4 1xPhospho [T648]	ZCCHC8 T648	CAF_only	-1.76	0.73	-1.71	1.86
Q6KC79 1xPhospho [T724]	NIPBL T724	Cancer_only	-1.64	1.48	-1.71	1.20
Q8TEK3 1xPhospho [T355]	DOT1L T355	Cancer_only	-4.62	1.31	-1.71	0.38
Q9BZF1 1xPhospho [T39]	OSBPL8 T39	Cancer_only	-1.31	1.62	-1.71	1.04
Q12893 1xPhospho [S320]	TMEM115 S320	Cancer_only	-1.63	1.33	-1.71	0.42
P11388 1xPhospho [S1106]	TOP2A S1106	Cancer_only	-2.66	1.36	-1.72	0.47
P46013 1xPhospho [S1983]	MKI67 S1983	Cancer_only	-1.30	1.30	-1.72	1.24
Q8IX07 2xPhospho [S491;S/T]	ZFPM1 S491;S/T	CAF_only	-1.56	0.61	-1.73	1.46
Q8NHM5 1xPhospho [S914]	KDM2B S914	Cancer_and_CAF	-1.85	1.34	-1.73	2.29
Q07065 1xPhospho [S26]	CKAP4 S26	CAF_only	-2.08	1.24	-1.74	1.67
Q9BY89 2xPhospho [T635;S/T]	KIAA1671 T635;S/T	CAF_only	-0.45	0.42	-1.75	1.69
Q5VT52 2xPhospho [S928;S930]	RPRD2 S928;S930	CAF_only	-0.85	1.31	-1.75	1.93
O43493 1xPhospho [S154]	TGOLN2 S154	Cancer_only	-4.33	2.01	-1.76	0.45
Q9BZ95 [552-574]	WHSC1L1 552-574	Cancer_only	-1.42	1.34	-1.76	1.24
Q9NQV5 1xPhospho [S63]	PRDM11 S63	Cancer_only	-1.55	1.49	-1.78	0.65
O75925 1xPhospho [S510]	PIAS1 S510	CAF_only	-0.64	0.08	-1.79	2.04
Q96Q15 1xPhospho [S34]	SMG1 S34	CAF_only	-1.84	0.43	-1.80	1.45
P0DJD0 1xPhospho [S1592]	RGPD1 S1592	CAF_only	-0.78	0.64	-1.80	1.47
P49792 1xPhospho [S2583]	RANBP2 S2583	CAF_only	-0.78	0.64	-1.80	1.47
Q99666 1xPhospho [S1607]	RGPD5 S1607	CAF_only	-0.78	0.64	-1.80	1.47
Q9H2Y7 2xPhospho [S872;S875]	ZNF106 S872;S875	Cancer_only	-4.15	1.63	-1.81	0.36

Q9UHB7 1xPhospho [S836]	AFF4 S836	Cancer_only	-2.65	1.42	-1.82	0.59
P55085 1xPhospho [S383]	F2RL1 S383	Cancer_only	1.96	1.64	-1.82	0.30
Q01167 1xPhospho [S398]	FOXK2 S398	Cancer_only	-2.30	1.73	-1.83	0.97
P43307 1xPhospho [S284]	SSR1 S284	CAF_only	-1.25	1.12	-1.84	1.46
P46013 1xPhospho [S1253]	MKI67 S1253	CAF_only	-2.54	1.20	-1.84	1.50
P41440 1xPhospho [S499]	SLC19A1 S499	Cancer_and_CAF	-3.55	1.34	-1.85	1.75
Q8IYB3 2xPhospho [S308;S310]	SRRM1 S308;S310	CAF_only	0.00	0.00	-1.86	1.32
P62995 2xPhospho [S282;S284]	TRA2B S282;S284	CAF_only	0.00	0.00	-1.86	1.32
Q07955 2xPhospho [S225;S227]	SRSF1 S225;S227	CAF_only	0.00	0.00	-1.86	1.32
Q13595 2xPhospho [S276;S278]	TRA2A S276;S278	CAF_only	0.00	0.00	-1.86	1.32
Q9BXW6 1xPhospho [S499]	OSBPL1A S499	CAF_only	-1.68	0.64	-1.86	1.41
Q8IZL8 1xPhospho [T1082]	PELP1 T1082	CAF_only	-1.84	0.67	-1.86	2.56
Q9H0E9 1xPhospho [T569]	BRD8 T569	Cancer_only	-1.28	1.35	-1.86	0.58
Q9UKV5 1xPhospho [S542]	AMFR S542	Cancer_only	-2.55	1.85	-1.87	0.59
Q8N0Y2 [158-186]	ZNF444 158-186	Cancer_only	-1.23	1.45	-1.88	0.97
O76021 2xPhospho [S392;S396]	RSL1D1 S392;S396	Cancer_only	-3.98	1.34	-1.88	0.82
Q6PD62 [1012-1027]	CTR9 1012-1027	CAF_only	-0.58	0.24	-1.89	1.52
Q6IQ22 1xPhospho [S21]	RAB12 S21	Cancer_only	-4.50	2.14	-1.89	0.31
O14523 1xPhospho [S662]	C2CD2L S662	CAF_only	-0.25	2.43	-1.89	1.39
P53985 1xPhospho [S483]	SLC16A1 S483	Cancer_only	-1.03	1.90	-1.92	0.94
P62820 1xPhospho [S194]	RAB1A S194	CAF_only	-1.33	0.52	-1.94	1.49
Q99569 2xPhospho [S273;S281]	PKP4 S273;S281	Cancer_only	-2.24	1.84	-1.97	0.77
O60315 1xPhospho [T203]	ZEB2 T203	Cancer_only	-1.72	1.71	-1.97	0.73

Q08945 2xPhospho [T642;S]	SSRP1 T642;S	Cancer_only	1.53	1.87	-1.98	0.36
Q15643 1xPhospho [S1341]	TRIP11 S1341	CAF_only	-1.25	0.64	-1.99	1.47
Q96AG4 1xPhospho [S23]	LRRC59 S23	CAF_only	-1.11	0.39	-2.00	1.61
Q9UQ35 [1892-1897]	SRRM2 1892-1897	CAF_only	-0.22	0.04	-2.03	1.64
Q9UM11 1xPhospho [S70]	FZR1 S70	CAF_only	-0.71	1.54	-2.03	1.75
Q8N3A8 1xPhospho [S323]	PARP8 S323	Cancer_only	-1.62	1.95	-2.04	0.60
O43151 2xPhospho [T792;S801]	TET3 T792;S801	CAF_only	0.79	0.51	-2.05	1.52
Q9BZE4 2xPhospho [S558;S]	GTPBP4 S558;S	CAF_only	-1.77	1.01	-2.05	2.50
Q14839 1xPhospho [S85]	CHD4 S85	CAF_only	-1.74	0.71	-2.07	2.26
Q9P1Y6 2xPhospho [S1127;S1128]	PHRF1 S1127;S1128	Cancer_and_CAF	-3.43	1.57	-2.09	2.62
Q15648 2xPhospho [T998;S1000]	MED1 T998;S1000	CAF_only	-1.88	0.99	-2.10	1.47
Q8TEK3 2xPhospho [S826;S834]	DOT1L S826;S834	Cancer_only	-4.37	1.63	-2.10	0.41
Q9H9J4 1xPhospho [S1166]	USP42 S1166	Cancer_only	-2.73	1.48	-2.13	0.56
P52569 1xPhospho [S455]	SLC7A2 S455	CAF_only	-4.61	0.84	-2.14	2.11
Q8WUZ0 1xPhospho [S126]	BCL7C S126	Cancer_and_CAF	-2.64	1.36	-2.15	1.55
P48681 2xPhospho [S1307;T/S]	NES S1307;T/S	Cancer_only	-1.39	1.57	-2.16	0.71
O15066 1xPhospho [T672]	KIF3B T672	Cancer_only	1.62	1.52	-2.17	0.23
Q9NU22 1xPhospho [S4752]	MDN1 S4752	Cancer_and_CAF	-3.10	1.81	-2.19	1.38
O94762 1xPhospho [S488]	RECQL5 S488	Cancer_only	-1.19	1.74	-2.20	0.69
Q9UQ35 1xPhospho [S1616]	SRRM2 S1616	Cancer_only	-1.87	1.70	-2.20	0.80
Q9C0B5 1xPhospho [S499]	ZDHHC5 S499	Cancer_only	-1.97	1.72	-2.21	0.44
O14863 1xPhospho [S32]	SLC30A4 S32	Cancer_only	-1.24	1.65	-2.24	0.72
Q9UBT2 1xPhospho [S289]	UBA2 S289	Cancer_only	-1.68	1.93	-2.24	0.67

P0C1Z6 2xPhospho [S249;S252]	TFPT S249;S252	CAF_only	-1.74	0.72	-2.28	1.54
P15408 2xPhospho [S308;T322]	FOSL2 S308;T322	CAF_only	-2.50	0.40	-2.31	1.49
Q7L590 1xPhospho [S644]	MCM10 S644	Cancer_only	-3.90	1.58	-2.32	0.78
P46013 [1959-1990]	MKI67 1959-1990	CAF_only	-1.68	1.28	-2.33	1.83
Q9Y2U8 1xPhospho [S280]	LEMD3 S280	Cancer_and_CAF	-3.29	2.59	-2.36	1.31
Q92522 1xPhospho [S31]	H1FX S31	CAF_only	-0.11	0.03	-2.37	2.23
P54132 [324-339]	BLM 324-339	Cancer_only	-3.91	1.82	-2.38	1.24
P19338 [17-51]	NCL 17-51	Cancer_only	-1.54	2.24	-2.38	0.63
P11388 1xPhospho [S1295]	TOP2A S1295	Cancer_only	-2.75	1.65	-2.39	0.46
P15336 1xPhospho [S328]	ATF2 S328	CAF_only	-1.92	1.24	-2.39	1.68
Q9HCK8 1xPhospho [S1424]	CHD8 S1424	CAF_only	-1.96	0.75	-2.41	1.60
Q8TEK3 1xPhospho [S1104]	DOT1L S1104	CAF_only	-2.65	0.62	-2.43	1.35
Q9NZJ5 1xPhospho [S555]	EIF2AK3 S555	Cancer_only	-3.02	1.45	-2.52	0.80
O95983 1xPhospho [S85]	MBD3 S85	Cancer_only	-4.02	1.46	-2.52	0.46
Q9UHI6 1xPhospho [S765]	DDX20 S765	CAF_only	-0.46	0.38	-2.56	1.62
Q15397 1xPhospho [S77]	KIAA0020 S77	Cancer_and_CAF	-4.44	1.39	-2.57	1.60
Q9UKV3 1xPhospho [S240]	ACIN1 S240	Cancer_only	-2.82	1.72	-2.59	1.29
Q6PL18 2xPhospho [S342;S/Y]	ATAD2 S342;S/Y	Cancer_only	-4.13	1.31	-2.59	0.98
Q99618 2xPhospho [S29;S31]	CDCA3 S29;S31	Cancer_only	-3.33	2.41	-2.61	0.71
Q53HC9 1xPhospho [T262]	TSSC1 T262	Cancer_only	1.95	1.52	-2.64	0.27
Q9UJX2 2xPhospho [T582;S/T]	CDC23 T582;S/T	CAF_only	-0.65	0.15	-2.79	1.39
Q8IY81 1xPhospho [T573]	FTSJ3 T573	Cancer_only	-2.44	1.52	-2.79	0.64
O14841 1xPhospho [T151]	OPLAH T151	Cancer_only	2.14	1.56	-2.89	0.27

Q8IYB3 2xPhospho [S530;S532]	SRRM1 S530;S532	CAF_only	-3.17	0.74	-2.91	2.12
Q29RF7 1xPhospho [T1208]	PDS5A T1208	Cancer_only	-2.35	1.66	-2.93	1.08
Q9NSC2 1xPhospho [S825]	SALL1 S825	CAF_only	-0.79	0.92	-2.95	1.45
Q9UQ35 2xPhospho [S2702;S2706]	SRRM2 S2702;S2706	Cancer_only	-1.31	2.17	-3.02	0.40
O60716 1xPhospho [T310]	CTNND1 T310	CAF_only	-2.89	0.80	-3.09	2.35
Q92545 1xPhospho [S1863]	TMEM131 S1863	Cancer_only	-4.40	2.97	-3.18	0.54
O75475 1xPhospho [T141]	PSIP1 T141	Cancer_only	-1.12	2.75	-3.21	1.09
Q96NW4 1xPhospho [S634]	ANKRD27 S634	CAF_only	-2.07	1.25	-3.37	1.65
Q9UKV3 2xPhospho [S240;S243]	ACIN1 S240;S243	Cancer_only	-1.61	1.60	-3.39	0.69
Q7Z2K6 1xPhospho [S53]	ERMP1 S53	Cancer_only	-1.01	1.61	-3.40	0.40
Q99590 2xPhospho [S816;S818]	SCAF11 S816;S818	Cancer_only	-2.82	1.38	-3.55	0.49
P62753 [233-243]	RPS6 233-243	Cancer_only	-3.95	2.09	-3.99	0.48
P15822 2xPhospho [S1293;S1297]	HIVEP1 S1293;S1297	CAF_only	-4.57	1.28	-4.16	1.55
Q14978 1xPhospho [T238]	NOLC1 T238	CAF_only	-4.98	0.90	-4.78	2.44
P10412 1xPhospho [T146]	HIST1H1E T146	Cancer_only	-3.33	3.81	-5.37	0.78
Q8TE73 1xPhospho [S1006]	DNAH5 S1006	Cancer_only	-1.16	1.37	-7.29	0.43
Q9UN79 [331-352]	SOX13 331-352	CAF_only	0.69	0.13	-8.49	1.62

Appendix table 13- Proteome changes with methotrexate in cancer or CAF CM

Accession	Gene	Significant change in	Log_2(Drug/DMSO) in Cancer CM	-Log_{10}(p value) in Cancer CM	Log_2(Drug/DMSO) in CAF CM	-Log_{10}(p value) in CAF CM
Q96FF9	CDCA5	CAF_only	5.16	0.60	6.03	1.54
Q5FBB7	SGOL1	Cancer_only	5.55	1.87	5.05	0.81
P20248	CCNA2	Cancer_only	5.08	1.51	5.03	0.69
Q9NQW6	ANLN	Cancer_only	5.36	1.45	4.50	0.83
Q9HAW4	CLSPN	Cancer_only	3.40	1.50	4.15	1.27
Q9NYZ3	GTSE1	Cancer_only	3.90	1.41	3.80	0.96
Q9ULW0	TPX2	Cancer_only	2.64	1.50	3.57	1.05
Q8NEM2	SHCBP1	Cancer_only	2.03	1.33	3.46	1.18
Q56NI9	ESCO2	Cancer_only	3.17	1.72	3.23	0.87
Q9H467	CUEDC2	Cancer_only	2.97	1.40	3.09	0.78
O43663	PRC1	Cancer_only	3.23	1.39	3.06	1.14
P17676	CEBPB	CAF_only	-0.32	0.12	2.74	1.34
Q96GD4	AURKB	CAF_only	0.50	0.18	2.70	1.55
Q9Y6Y0	IVNS1ABP	Cancer_and_CAF	8.37	1.44	2.62	1.37
Q14807	KIF22	CAF_only	2.24	0.96	2.58	1.74
P43007	SLC1A4	CAF_only	0.64	0.16	2.33	1.35
Q9BW19	KIFC1	Cancer_only	2.25	2.34	2.27	0.74
P0CAP1	MYZAP	CAF_only	5.14	1.20	2.23	1.70
O95067	CCNB2	Cancer_only	1.95	1.72	2.14	0.78
P07093	SERPINE2	CAF_only	1.58	0.67	2.14	1.32

O43294	TGFB1I1	Cancer_only	3.83	1.81	2.13	0.60
Q9BXW9	FANCD2	CAF_only	1.89	0.78	2.06	2.27
Q8NHP8	PLBD2	Cancer_and_CAF	-1.19	1.63	1.93	1.51
Q9NQS7	INCENP	CAF_only	0.61	0.63	1.91	1.52
P05106	ITGB3	CAF_only	2.62	0.92	1.89	1.83
P50281	MMP14	CAF_only	1.53	0.26	1.88	1.82
Q9Y4C1	KDM3A	CAF_only	4.74	0.86	1.88	1.37
Q9NRV9	HEBP1	CAF_only	1.75	0.82	1.87	1.31
Q9H410	DSN1	Cancer_only	1.36	2.35	1.86	0.72
Q96HE9	PRR11	CAF_only	-1.25	0.45	1.84	1.39
P46976	GYG1	Cancer_only	4.63	1.70	1.82	1.10
Q12851	MAP4K2	Cancer_only	1.49	1.65	1.81	0.85
Q9GZM7	TINAGL1	CAF_only	3.82	1.04	1.77	1.71
Q9NR45	NANS	Cancer_only	1.77	2.01	1.76	0.63
P15408	FOSL2	CAF_only	1.13	1.26	1.73	2.31
O00462	MANBA	Cancer_and_CAF	2.21	1.55	1.73	1.38
Q13426	XRCC4	Cancer_only	2.53	1.34	1.72	0.77
P14923	JUP	CAF_only	1.55	0.62	1.71	1.34
P06746	POLB	CAF_only	1.89	0.91	1.71	1.60
Q8WUY8	NAT14	Cancer_only	1.67	1.45	1.67	0.93
P63279	UBE2I	Cancer_only	1.39	1.33	1.66	1.03
Q8N806	UBR7	Cancer_only	3.56	1.70	1.66	0.59
O75475	PSIP1	CAF_only	1.10	0.29	1.65	1.80

Q6P4A8	PLBD1	CAF_only	0.20	0.06	1.60	1.49
O43252	PAPSS1	Cancer_only	2.93	1.58	1.60	0.99
Q9NVI1	FANCI	CAF_only	2.09	1.06	1.59	1.67
Q92466	DDB2	Cancer_only	1.88	1.62	1.59	1.18
O15440	ABCC5	Cancer_and_CAF	2.08	1.84	1.59	1.58
Q92547	TOPBP1	CAF_only	0.82	0.31	1.56	1.52
P27707	DCK	Cancer_only	2.30	1.34	1.55	1.15
Q9Y5B9	SUPT16H	CAF_only	1.28	0.84	1.54	1.53
Q05932	FPGS	CAF_only	-0.73	0.83	1.52	1.50
P05455	SSB	Cancer_and_CAF	1.37	1.38	1.51	1.47
O00459	PIK3R2	CAF_only	0.94	0.25	1.50	1.37
Q70EL1	USP54	CAF_only	-0.52	0.16	1.50	2.13
Q0VG06	FAAP100	CAF_only	-0.55	0.63	1.48	1.48
Q9BWD1	ACAT2	Cancer_only	2.78	1.63	1.48	0.77
Q9UBG0	MRC2	Cancer_only	3.11	1.50	1.47	0.68
Q15020	SART3	CAF_only	0.34	0.42	1.45	1.49
Q15102	PAFAH1B3	Cancer_only	1.72	1.30	1.45	0.62
Q5T7W0	ZNF618	CAF_only	0.27	0.15	1.45	1.98
P61619	SEC61A1	Cancer_and_CAF	-2.36	1.86	1.40	1.92
O43633	CHMP2A	CAF_only	0.40	0.63	1.40	1.32
Q9H4B6	SAV1	CAF_only	-0.29	0.16	1.39	1.35
Q86X52	CHSY1	CAF_only	-0.01	0.00	1.38	1.53
O15460	P4HA2	Cancer_only	2.87	2.21	1.36	0.99

Q9Y4G6	TLN2	CAF_only	0.04	0.01	1.36	1.72
Q8TER5	ARHGEF40	Cancer_only	1.36	1.46	1.34	1.24
P49454	CENPF	CAF_only	-0.09	0.04	1.34	1.80
O15438	ABCC3	CAF_only	1.75	0.93	1.34	1.38
Q9UNQ0	ABCG2	CAF_only	-1.99	1.02	1.33	2.01
P35244	RPA3	Cancer_only	1.86	1.30	1.33	0.43
Q8WWN8	ARAP3	CAF_only	2.39	1.27	1.32	2.37
Q96IZ0	PAWR	Cancer_and_CAF	1.75	1.56	1.32	1.86
P53365	ARFIP2	Cancer_only	1.85	1.42	1.31	0.75
P09486	SPARC	CAF_only	-0.82	0.89	1.30	1.57
Q6IBS0	TWF2	Cancer_only	1.89	1.49	1.30	0.71
Q9NWY4	C4orf27	Cancer_only	1.06	1.37	1.29	1.26
Q7Z7M9	GALNT5	CAF_only	-0.11	0.06	1.29	1.38
Q7L5N1	COPS6	Cancer_only	1.74	1.37	1.29	0.90
Q16799	RTN1	CAF_only	0.17	0.26	1.28	1.97
O94903	PROSC	CAF_only	0.06	0.44	1.25	1.41
Q8IVL5	LEPREL1	Cancer_only	4.38	1.87	1.25	0.37
O43719	HTATSF1	CAF_only	0.61	0.36	1.24	1.39
O75396	SEC22B	CAF_only	-1.11	1.05	1.23	1.35
Q8TDX7	NEK7	CAF_only	1.23	0.36	1.23	1.70
Q96G21	IMP4	CAF_only	-1.18	0.46	1.23	1.47
P49589	CARS	Cancer_only	1.39	1.41	1.22	0.91
P84085	ARF5	Cancer_only	1.94	1.36	1.22	1.01

O60936	NOL3	Cancer_only	3.25	1.52	1.21	0.47
Q96NE9	FRMD6	CAF_only	0.85	0.48	1.21	2.00
Q9BPW8	NIPSNAP1	CAF_only	1.20	0.53	1.19	1.47
Q16527	CSRP2	Cancer_only	1.81	1.47	1.19	0.69
Q96AQ6	PBXIP1	Cancer_only	2.17	2.31	1.18	0.99
P08243	ASNS	CAF_only	-1.83	0.89	1.18	1.63
Q8NCW5	APOA1BP	Cancer_and_CAF	1.98	1.89	1.17	1.31
P11388	TOP2A	CAF_only	-0.85	0.88	1.17	1.84
Q92947	GCDH	CAF_only	0.44	0.63	1.16	1.32
Q92541	RTF1	Cancer_only	2.86	1.40	1.16	0.68
Q8IW50	FAM219A	Cancer_and_CAF	-1.46	1.45	1.15	1.43
Q5T013	HYI	Cancer_only	3.00	1.31	1.14	0.63
Q15629	TRAM1	CAF_only	0.47	0.63	1.13	1.45
Q01968	OCRL	CAF_only	0.67	0.74	1.12	1.77
Q8WVB6	CHTF18	CAF_only	0.97	0.60	1.11	2.46
O60701	UGDH	Cancer_only	1.85	1.97	1.11	0.99
Q9H1B5	XYLT2	CAF_only	-0.77	0.80	1.10	1.72
P12268	IMPDH2	Cancer_only	2.35	1.92	1.10	1.04
Q9GZZ9	UBA5	Cancer_only	1.40	1.39	1.09	0.76
Q96CN7	ISOC1	CAF_only	0.12	0.04	1.09	1.50
Q8WXH0	SYNE2	CAF_only	-0.09	0.02	1.09	1.83
Q8IVF2	AHNAK2	CAF_only	1.36	0.52	1.08	1.36
O15260	SURF4	Cancer_only	-2.45	1.34	1.08	1.19

Q8IZ83	ALDH16A1	Cancer_only	1.76	1.63	1.08	0.74
Q9BX95	SGPP1	CAF_only	-0.93	0.48	1.08	1.32
O43598	DNPH1	Cancer_only	3.91	1.88	1.07	0.45
P34949	MPI	Cancer_only	2.73	1.42	1.07	0.48
O43426	SYNJ1	Cancer_only	1.28	1.85	1.05	0.83
A1X283	SH3PXD2B	Cancer_only	1.24	2.80	1.05	0.49
Q9NQ11	ATP13A2	CAF_only	-1.46	0.61	1.04	1.34
P51858	HDGF	Cancer_only	2.22	1.51	1.03	0.70
Q6P1K2	PMF1	CAF_only	0.69	0.33	1.03	1.62
Q01844	EWSR1	CAF_only	-0.90	0.50	1.02	1.67
Q9BW30	TPPP3	Cancer_only	3.22	1.85	1.02	0.35
O75874	IDH1	CAF_only	1.96	0.95	1.02	2.89
P08559	PDHA1	CAF_only	0.83	1.01	1.02	2.46
O75864	PPP1R37	CAF_only	0.31	0.16	1.02	1.33
Q9BU02	THTPA	CAF_only	1.75	1.08	1.02	1.62
Q7Z7F0	KIAA0907	CAF_only	-0.88	0.25	1.01	1.51
P0CG30	GSTT2B	Cancer_only	3.46	1.89	1.01	0.34
Q9H8V3	ECT2	Cancer_only	2.11	2.06	1.00	1.03
Q99627	COPS8	Cancer_only	1.05	1.76	0.96	0.85
Q9H6Z4	RANBP3	Cancer_only	1.83	1.51	0.96	0.68
Q13098	GPS1	Cancer_only	1.62	1.32	0.95	0.88
P27694	RPA1	Cancer_only	1.92	2.40	0.95	0.64
Q8WZ42	TTN	Cancer_only	-3.48	2.52	0.94	0.29

Q14527	HLTF	Cancer_only	4.08	1.54	0.94	0.45
Q03169	TNFAIP2	Cancer_only	1.41	1.83	0.89	0.52
P18827	SDC1	Cancer_only	-1.72	1.68	0.89	1.11
P54725	RAD23A	Cancer_only	1.57	1.77	0.89	0.82
Q9BST9	RTKN	Cancer_only	2.55	1.42	0.87	0.42
P06733	ENO1	Cancer_only	2.01	1.93	0.87	0.32
Q8TCD5	NT5C	Cancer_only	2.51	2.04	0.87	0.66
Q9Y2H1	STK38L	Cancer_only	2.26	1.39	0.86	0.46
P35914	HMGCL	Cancer_only	-1.20	1.84	0.86	0.52
Q9H5V8	CDCP1	Cancer_only	-1.41	2.06	0.85	0.55
P06132	UROD	Cancer_only	1.40	1.82	0.85	0.64
P49903	SEPHS1	Cancer_only	1.22	1.53	0.84	0.63
Q8N129	CNPY4	Cancer_only	2.16	1.44	0.84	0.25
Q8NDH3	NPEPL1	Cancer_only	2.02	1.39	0.84	1.56
P15104	GLUL	Cancer_only	3.15	1.30	0.83	0.92
P33316	DUT	Cancer_only	3.25	2.24	0.83	0.43
Q9NZ08	ERAP1	Cancer_only	1.50	2.96	0.82	0.56
P12277	CKB	Cancer_only	1.76	2.10	0.81	0.25
Q6ZW49	PAXIP1	Cancer_only	1.35	1.38	0.81	0.58
Q9Y678	COPG1	Cancer_only	1.05	1.38	0.81	0.98
Q9Y3L3	SH3BP1	Cancer_only	1.83	1.36	0.80	0.53
O96017	CHEK2	Cancer_only	2.68	1.90	0.80	0.42
Q9UL15	BAG5	Cancer_only	1.91	3.17	0.79	0.82

Q92890	UFD1L	Cancer_only	1.17	1.35	0.78	0.61
Q5TFE4	NT5DC1	Cancer_only	1.90	1.72	0.76	0.49
Q07960	ARHGAP1	Cancer_only	2.39	1.48	0.76	0.89
P10321	HLA-C	Cancer_only	-1.85	2.57	0.75	0.65
Q9P2T1	GMPR2	Cancer_only	1.63	1.32	0.74	0.54
Q9NSV4	DIAPH3	Cancer_only	1.08	1.89	0.73	0.26
P55263	ADK	Cancer_only	1.81	1.50	0.72	0.66
Q15596	NCOA2	Cancer_only	1.65	1.69	0.70	0.44
P17174	GOT1	Cancer_only	1.17	1.83	0.70	0.82
P41252	IARS	Cancer_only	1.33	1.40	0.68	0.94
Q9BTW9	TBCD	Cancer_only	1.90	1.41	0.67	0.85
Q9BXR0	QTRT1	Cancer_only	2.30	1.53	0.67	1.15
Q9HB71	CACYBP	Cancer_only	1.48	1.41	0.67	0.87
Q01813	PFKP	Cancer_only	1.70	2.35	0.67	1.22
Q70CQ2	USP34	Cancer_only	1.35	1.59	0.66	1.79
Q8IV38	ANKMY2	Cancer_only	2.06	1.58	0.66	0.39
Q9ULQ0	STRIP2	Cancer_only	1.43	1.41	0.66	0.45
P45984	MAPK9	Cancer_only	1.74	1.59	0.66	0.98
Q8TD19	NEK9	Cancer_only	1.89	2.59	0.66	0.40
Q9Y3D3	MRPS16	Cancer_only	-1.97	1.42	0.65	0.65
Q9UL54	TAOK2	Cancer_only	-1.52	2.44	0.65	0.48
Q9UBL6	CPNE7	Cancer_only	3.03	1.73	0.65	0.26
O75391	SPAG7	Cancer_only	5.11	2.15	0.65	0.57

Q9NRG1	PRTFDC1	Cancer_only	2.52	2.35	0.64	0.33
P41214	EIF2D	Cancer_only	2.18	2.40	0.64	0.53
Q14320	FAM50A	Cancer_only	1.60	1.35	0.63	0.35
Q16222	UAP1	Cancer_only	1.52	1.52	0.63	0.27
Q8N5F7	NKAP	Cancer_only	-1.11	1.47	0.62	0.15
Q04760	GLO1	Cancer_only	2.24	1.83	0.62	0.30
Q9UNS2	COPS3	Cancer_only	2.17	1.47	0.61	0.94
Q8WXG6	MADD	Cancer_only	1.18	1.53	0.59	1.14
Q9BZF9	UACA	Cancer_only	2.01	1.73	0.59	0.29
Q12986	NFX1	Cancer_only	1.10	1.62	0.59	0.46
Q96I15	SCLY	Cancer_only	1.70	1.84	0.57	0.59
P35237	SERPINB6	Cancer_only	2.17	1.37	0.56	0.33
P31939	ATIC	Cancer_only	2.16	1.40	0.55	0.86
Q9UJU6	DBNL	Cancer_only	1.48	1.33	0.55	0.29
O15294	OGT	Cancer_only	1.58	1.31	0.54	0.62
Q92538	GBF1	Cancer_only	1.25	2.39	0.54	0.37
P16152	CBR1	Cancer_only	1.60	1.34	0.53	0.43
Q9ULS5	TMCC3	Cancer_only	-2.24	1.71	0.53	0.57
P21399	ACO1	Cancer_only	2.51	1.67	0.53	0.39
P54578	USP14	Cancer_only	1.63	1.53	0.53	1.19
P40121	CAPG	Cancer_only	2.39	1.63	0.52	0.31
Q15404	RSU1	Cancer_only	2.48	1.30	0.51	0.43
Q9UBS0	RPS6KB2	Cancer_only	2.39	1.66	0.50	0.68

P55058	PLTP	Cancer_only	-1.36	1.94	0.49	0.53
Q9BRQ8	AIFM2	Cancer_only	-1.13	2.15	0.49	0.77
O75569	PRKRA	Cancer_only	2.61	1.47	0.49	0.63
Q6UWE0	LRSAM1	Cancer_only	1.73	1.64	0.49	0.50
P41236	PPP1R2	Cancer_only	1.93	1.65	0.48	0.46
Q969G5	PRKCDBP	Cancer_only	-1.36	1.41	0.47	0.29
Q13615	MTMR3	Cancer_only	1.48	1.90	0.47	0.14
Q9BXY0	MAK16	Cancer_only	-2.60	1.31	0.47	0.51
Q8NHV4	NEDD1	Cancer_only	2.40	2.12	0.47	0.39
O94760	DDAH1	Cancer_only	2.50	1.35	0.46	0.62
Q9Y5Y2	NUBP2	Cancer_only	1.28	1.43	0.46	1.09
P27708	CAD	Cancer_only	1.69	2.38	0.46	0.69
Q9Y676	MRPS18B	Cancer_only	-2.41	1.51	0.46	0.32
O60437	PPL	Cancer_only	1.76	1.46	0.46	0.67
O95260	ATE1	Cancer_only	1.61	3.53	0.45	0.20
Q13409	DYNC1I2	Cancer_only	1.08	1.31	0.44	1.25
O14681	EI24	Cancer_only	-2.10	2.00	0.44	0.40
Q96QK1	VPS35	Cancer_only	1.00	1.37	0.43	0.39
Q7Z449	CYP2U1	Cancer_only	1.05	1.72	0.43	0.33
Q7Z3U7	MON2	Cancer_only	1.83	1.38	0.43	0.38
Q99708	RBBP8	Cancer_only	2.10	1.71	0.43	0.22
P53671	LIMK2	Cancer_only	1.89	2.20	0.42	0.73
P11586	MTHFD1	Cancer_only	2.10	1.30	0.41	0.54

P48163	ME1	Cancer_only	2.00	1.71	0.40	0.51
O43592	XPOT	Cancer_only	1.42	1.47	0.40	0.15
O00764	PDXK	Cancer_only	1.65	1.40	0.40	0.17
Q96GQ5	C16orf58	Cancer_only	-2.05	1.38	0.39	0.39
Q9UET6	FTSJ1	Cancer_only	1.24	2.53	0.38	0.37
P55212	CASP6	Cancer_only	2.22	1.84	0.38	0.38
Q15654	TRIP6	Cancer_only	1.66	1.85	0.38	0.16
Q92575	UBXN4	Cancer_only	-1.54	1.41	0.37	0.47
P07858	CTSB	Cancer_only	-1.67	2.77	0.37	0.17
Q92545	TMEM131	Cancer_only	1.72	2.44	0.37	0.26
P52788	SMS	Cancer_only	1.44	2.13	0.36	0.97
Q9H0R4	HDHD2	Cancer_only	1.87	1.78	0.36	0.37
P42025	ACTR1B	Cancer_only	1.95	1.56	0.36	0.83
O96005	CLPTM1	Cancer_only	-1.76	1.32	0.35	0.26
Q13325	IFIT5	Cancer_only	1.60	1.35	0.35	0.17
P36507	MAP2K2	Cancer_only	1.24	2.48	0.35	0.14
Q9NQW7	XPNPEP1	Cancer_only	1.86	2.03	0.34	0.21
Q96C90	PPP1R14B	Cancer_only	2.23	1.87	0.34	0.41
O14647	CHD2	Cancer_only	1.03	1.69	0.34	0.50
O60504	SORBS3	Cancer_only	1.87	2.35	0.34	0.37
P41226	UBA7	Cancer_only	1.26	1.78	0.33	0.30
P49448	GLUD2	Cancer_only	-1.13	1.36	0.33	1.25
P53701	HCCS	Cancer_only	-1.62	1.53	0.33	0.54

Q9Y5X3	SNX5	Cancer_only	2.35	1.90	0.32	0.18
Q9Y5K6	CD2AP	Cancer_only	1.37	1.54	0.31	0.61
Q99766	ATP5S	Cancer_only	1.13	2.08	0.31	0.10
Q15813	TBCE	Cancer_only	1.83	2.12	0.31	0.44
Q9NUU7	DDX19A	Cancer_only	3.73	2.38	0.31	0.58
Q96N66	MBOAT7	Cancer_only	-1.20	1.89	0.31	0.24
O00562	PITPNM1	Cancer_only	1.47	1.70	0.30	0.33
P18615	NELFE	Cancer_only	1.58	1.32	0.30	1.36
Q15435	PPP1R7	Cancer_only	1.96	1.58	0.30	0.47
Q9NV96	TMEM30A	Cancer_only	-1.41	2.01	0.30	0.94
Q9UNF0	PACSIN2	Cancer_only	1.14	1.48	0.30	1.07
Q96DA6	DNAJC19	Cancer_only	-1.65	1.65	0.30	0.15
Q14019	COTL1	Cancer_only	2.18	1.37	0.29	0.25
Q9Y6M9	NDUFB9	Cancer_only	-1.33	2.73	0.28	0.29
Q7Z6Z7	HUWE1	Cancer_only	1.34	2.77	0.27	1.71
Q16795	NDUFA9	Cancer_only	-1.06	1.43	0.26	0.12
Q14914	PTGR1	Cancer_only	1.67	1.31	0.26	0.21
P78537	BLOC1S1	Cancer_only	1.01	1.72	0.26	0.17
Q8NDD1	C1orf131	Cancer_only	-1.31	1.42	0.25	1.24
Q9UEW8	STK39	Cancer_only	1.02	1.76	0.25	0.24
Q16555	DPYSL2	Cancer_only	1.99	3.03	0.24	0.42
Q5VW36	FOCAD	Cancer_only	1.10	1.53	0.24	0.67
P41240	CSK	Cancer_only	1.40	2.59	0.24	0.16

Q9BQE4	VIMP	Cancer_only	-4.68	1.69	0.24	0.72
P54687	BCAT1	Cancer_only	1.60	1.42	0.23	0.14
Q8ND82	ZNF280C	Cancer_only	-2.25	1.34	0.23	0.21
Q8WUH2	TGFBRAP1	Cancer_only	1.46	1.36	0.22	0.49
Q9Y263	PLAA	Cancer_only	1.57	1.50	0.22	0.08
P09525	ANXA4	Cancer_only	1.73	1.96	0.21	0.04
Q8NE71	ABCF1	Cancer_only	1.11	1.76	0.20	0.46
Q9UKV3	ACIN1	Cancer_only	-1.06	2.12	0.20	0.46
O00244	ATOX1	Cancer_only	3.11	2.10	0.19	0.05
Q5VZK9	LRRC16A	Cancer_only	2.21	1.40	0.18	0.48
Q15043	SLC39A14	Cancer_only	-3.13	2.06	0.17	0.05
Q7Z4G4	TRMT11	Cancer_only	1.28	1.86	0.16	0.38
Q6UX04	CWC27	Cancer_only	1.01	1.32	0.16	0.41
Q5VIR6	VPS53	Cancer_only	1.46	1.57	0.15	0.10
Q9NP79	VTA1	Cancer_only	1.44	1.55	0.15	0.34
Q8TAE8	GADD45GIP1	Cancer_only	-1.67	1.68	0.14	0.09
O00429	DNM1L	Cancer_only	1.80	1.81	0.14	0.54
P31150	GDI1	Cancer_only	2.35	1.62	0.14	0.14
P22694	PRKACB	Cancer_only	1.03	2.44	0.14	0.19
O95785	WIZ	Cancer_only	1.30	1.98	0.14	0.08
Q99426	TBCB	Cancer_only	1.89	2.34	0.13	0.30
Q9Y4A0	JRKL	Cancer_only	-1.25	1.78	0.13	0.04
O43314	PPIP5K2	Cancer_only	1.55	1.73	0.13	0.20

Q9NR50	EIF2B3	Cancer_only	1.37	1.87	0.13	0.20
Q9UBH6	XPR1	Cancer_only	-1.89	2.16	0.13	0.17
O94979	SEC31A	Cancer_only	1.90	1.79	0.13	0.30
Q9UN37	VPS4A	Cancer_only	1.30	1.40	0.12	0.23
O15067	PFAS	Cancer_only	1.32	1.71	0.12	0.07
P82673	MRPS35	Cancer_only	-1.64	1.43	0.12	0.25
P22061	PCMT1	Cancer_only	1.49	2.10	0.12	0.47
P49795	RGS19	Cancer_only	1.05	2.14	0.12	0.05
Q9BUT1	BDH2	Cancer_only	3.06	1.73	0.11	0.67
P41223	BUD31	Cancer_only	-1.67	1.47	0.11	0.22
Q9UBF2	COPG2	Cancer_only	1.08	1.59	0.10	0.51
Q15154	PCM1	Cancer_only	1.12	1.51	0.09	0.12
Q9NZ32	ACTR10	Cancer_only	1.53	2.07	0.09	0.06
Q01469	FABP5	Cancer_only	2.19	1.99	0.08	0.05
Q96E29	MTERF3	Cancer_only	-2.51	1.45	0.08	0.04
Q9Y519	TMEM184B	Cancer_only	-1.17	2.17	0.07	0.07
Q92734	TFG	Cancer_only	1.21	1.37	0.07	0.08
Q9UHQ9	CYB5R1	Cancer_only	-1.56	2.33	0.07	0.04
Q06124	PTPN11	Cancer_only	1.55	2.11	0.06	0.04
P13196	ALAS1	Cancer_only	-3.24	1.31	0.06	0.05
P62820	RAB1A	Cancer_only	-1.11	2.25	0.05	0.25
Q9NQ48	LZTFL1	Cancer_only	2.46	1.64	0.05	0.05
Q9H553	ALG2	Cancer_only	-1.15	2.17	0.04	0.03

Q9NUX5	POT1	Cancer_only	1.08	2.08	0.04	0.02
O60879	DIAPH2	Cancer_only	1.83	1.69	0.04	0.05
Q96RR1	PEO1	Cancer_only	-1.22	1.64	0.03	0.02
Q7Z5L9	IRF2BP2	Cancer_only	1.65	1.62	0.02	0.03
Q8WUP2	FBLIM1	Cancer_only	1.68	1.39	0.02	0.19
Q8IWB7	WDFY1	Cancer_only	1.01	1.93	0.01	0.01
Q3LXA3	DAK	Cancer_only	1.47	1.38	0.01	0.01
P15311	EZR	Cancer_only	1.40	1.60	0.01	0.43
O00264	PGRMC1	Cancer_only	-2.00	1.59	0.00	0.01
Q96S66	CLCC1	Cancer_only	-1.12	1.60	-0.01	0.02
Q9UKM9	RALY	Cancer_only	-2.11	1.66	-0.01	0.32
Q96C23	GALM	Cancer_only	2.34	1.90	-0.02	0.01
P42566	EPS15	Cancer_only	1.15	1.70	-0.02	0.15
Q9NZN5	ARHGEF12	Cancer_only	1.51	1.46	-0.02	0.07
Q9UBI1	COMMD3	Cancer_only	1.70	1.89	-0.03	0.03
ENST00000280333_NCI-H1792_Mis:P82L	DOCK1	Cancer_only	1.25	1.65	-0.03	0.08
P19338	NCL	Cancer_only	-1.26	1.37	-0.03	0.03
Q9Y2Z4	YARS2	Cancer_only	-1.55	1.81	-0.03	0.02
Q9NPR2	SEMA4B	Cancer_only	2.11	1.62	-0.03	0.01
P16435	POR	Cancer_only	-1.42	1.52	-0.04	0.05
Q9P2B4	CTTNBP2NL	Cancer_only	1.30	1.79	-0.05	0.07
P07711	CTSL	Cancer_only	-2.32	1.31	-0.05	0.01

P56937	HSD17B7	Cancer_only	-1.59	1.75	-0.05	0.19
Q6I9Y2	THOC7	Cancer_only	-1.13	1.32	-0.05	0.04
Q00839	HNRNPU	Cancer_only	-1.45	1.53	-0.06	0.06
Q9UHA3	RSL24D1	Cancer_only	-3.57	1.38	-0.06	0.25
Q68DA7	FMN1	Cancer_only	1.04	2.29	-0.07	0.03
O94927	HAUS5	Cancer_only	1.39	1.41	-0.07	0.10
P31751	AKT2	Cancer_only	2.55	1.62	-0.07	0.04
O14874	BCKDK	Cancer_only	2.51	2.68	-0.08	0.65
Q9UQ90	SPG7	Cancer_only	-1.41	2.03	-0.08	1.16
Q69YH5	CDCA2	Cancer_only	-1.61	2.00	-0.10	0.35
P00352	ALDH1A1	Cancer_only	1.62	2.08	-0.11	0.04
O60518	RANBP6	Cancer_only	-1.02	1.74	-0.11	0.54
P06744	GPI	Cancer_only	2.12	1.62	-0.11	0.06
P17480	UBTF	Cancer_only	-1.10	1.81	-0.11	0.11
Q8TC07	TBC1D15	Cancer_only	2.06	1.44	-0.12	0.28
Q07864	POLE	Cancer_only	-1.21	1.43	-0.12	0.52
Q03252	LMNB2	Cancer_only	-1.35	1.30	-0.12	0.31
P60660	MYL6	Cancer_only	1.25	2.68	-0.13	0.92
P28482	MAPK1	Cancer_only	1.36	1.95	-0.13	0.70
Q96RT7	TUBGCP6	Cancer_only	-1.37	1.52	-0.14	0.71
O15212	PFDN6	Cancer_only	2.42	2.62	-0.14	0.42
A6NHR9	SMCHD1	Cancer_only	-1.26	1.44	-0.14	0.31
Q9UNN5	FAF1	Cancer_only	1.50	1.41	-0.15	0.72

Q96C01	FAM136A	Cancer_only	-1.18	1.88	-0.15	0.20
Q8IU85	CAMK1D	Cancer_only	2.07	1.86	-0.16	0.17
Q15054	POLD3	Cancer_only	2.19	1.56	-0.16	0.25
Q9H1Y0	ATG5	Cancer_only	1.05	1.42	-0.17	0.32
Q5SW79	CEP170	Cancer_only	1.75	1.46	-0.18	1.43
Q5JRX3	PITRM1	Cancer_only	-1.51	2.54	-0.18	0.37
Q8TBN0	RAB3IL1	Cancer_only	-1.86	1.79	-0.18	0.05
Q9ULD2	MTUS1	Cancer_only	1.25	1.55	-0.19	0.26
Q6VY07	PACS1	Cancer_only	2.39	2.85	-0.19	0.21
P53634	CTSC	Cancer_only	-1.46	1.78	-0.20	0.45
Q92896	GLG1	Cancer_only	-1.48	2.05	-0.20	0.47
Q96JG6	CCDC132	Cancer_only	1.33	1.35	-0.20	0.20
Q9HCU5	PREB	Cancer_only	-1.20	1.36	-0.20	0.15
Q96FJ0	STAMBPL1	Cancer_only	1.64	1.74	-0.20	0.10
Q3MIP1	ITPRIPL2	Cancer_only	-2.23	1.47	-0.21	0.42
Q86XZ4	SPATS2	Cancer_only	1.25	1.83	-0.21	0.36
Q9P032	NDUFAF4	Cancer_only	-1.92	1.83	-0.21	0.07
Q6P1M0	SLC27A4	Cancer_only	-1.96	1.74	-0.23	0.18
Q99549	MPHOSPH8	Cancer_only	-1.72	1.37	-0.23	0.54
P57737	CORO7	Cancer_only	1.43	1.48	-0.23	0.35
O60907	TBL1X	Cancer_only	-1.23	1.43	-0.24	0.11
Q9HD33	MRPL47	Cancer_only	-2.28	1.38	-0.25	0.52
Q6P2Q9	PRPF8	Cancer_only	-1.44	1.35	-0.25	0.28

Q5BKZ1	ZNF326	Cancer_only	-2.68	1.55	-0.25	0.36
Q8N8A6	DDX51	Cancer_only	-2.24	3.69	-0.26	0.11
P04179	SOD2	Cancer_only	-1.00	1.86	-0.26	0.10
Q9P0J0	NDUFA13	Cancer_only	-2.33	1.35	-0.26	0.52
P05023	ATP1A1	Cancer_only	-2.71	1.49	-0.26	0.99
Q8N5Y2	MSL3	Cancer_only	-1.19	1.45	-0.28	0.43
Q14197	ICT1	Cancer_only	-2.19	1.74	-0.29	0.26
Q9Y6W3	CAPN7	Cancer_only	1.16	1.99	-0.29	0.51
O75351	VPS4B	Cancer_only	1.62	2.21	-0.29	0.32
Q9P219	CCDC88C	Cancer_only	-1.19	1.55	-0.29	0.56
Q9NXV6	CDKN2AIP	Cancer_only	1.06	1.65	-0.30	0.53
Q9UNW1	MINPP1	Cancer_only	1.34	1.81	-0.31	0.31
Q9NQX3	GPHN	Cancer_only	1.48	2.32	-0.31	0.49
P18206	VCL	Cancer_only	1.30	1.40	-0.31	0.29
O43615	TIMM44	Cancer_only	-1.69	1.33	-0.31	1.20
Q53EU6	AGPAT9	Cancer_only	-2.13	1.59	-0.32	0.51
Q99439	CNN2	Cancer_only	1.67	2.21	-0.33	0.27
O00541	PES1	Cancer_only	-2.30	1.38	-0.33	0.28
Q6PIU2	NCEH1	Cancer_only	-1.25	2.28	-0.34	1.04
Q92621	NUP205	Cancer_only	-1.03	1.47	-0.34	0.36
Q5T9A4	ATAD3B	Cancer_only	-2.24	1.48	-0.35	0.50
Q8N392	ARHGAP18	Cancer_only	3.09	1.40	-0.35	0.79
Q96CW5	TUBGCP3	Cancer_only	1.10	2.77	-0.36	0.33

Q9H4A3	WNK1	Cancer_only	1.30	2.35	-0.36	0.48
Q99623	PHB2	Cancer_only	-1.30	1.88	-0.37	0.26
Q9Y3P9	RABGAP1	Cancer_only	1.97	1.40	-0.38	0.52
Q9UHE8	STEAP1	Cancer_only	-1.43	2.45	-0.38	1.16
Q9Y5M8	SRPRB	Cancer_only	-2.48	1.68	-0.38	1.18
P28908	TNFRSF8	Cancer_only	-2.34	1.70	-0.39	0.35
Q13439	GOLGA4	Cancer_only	-1.13	1.51	-0.39	0.97
Q15599	SLC9A3R2	Cancer_only	-1.23	1.74	-0.39	0.48
Q8N766	EMC1	Cancer_only	-1.34	1.69	-0.40	0.47
O60343	TBC1D4	Cancer_only	1.63	1.36	-0.40	0.33
Q9Y4W6	AFG3L2	Cancer_only	-1.26	1.91	-0.40	0.36
Q9BV23	ABHD6	Cancer_only	-2.01	1.72	-0.40	0.22
P11441	UBL4A	Cancer_only	1.93	1.88	-0.41	0.54
Q96A35	MRPL24	Cancer_only	-1.76	1.96	-0.41	1.03
Q00765	REEP5	Cancer_only	-1.48	1.90	-0.41	0.32
Q07817	BCL2L1	Cancer_only	-1.55	1.57	-0.42	0.15
Q92667	AKAP1	Cancer_only	-1.58	1.57	-0.44	0.84
Q5J8M3	EMC4	Cancer_only	-1.62	1.37	-0.44	0.16
Q8TDZ2	MICAL1	Cancer_only	1.61	1.69	-0.44	0.61
Q9NWV4	C1orf123	Cancer_only	2.92	2.93	-0.45	0.13
Q14938	NFIX	Cancer_only	-2.04	1.40	-0.46	0.32
Q9UPZ3	HPS5	Cancer_only	2.39	1.73	-0.47	0.77
P29401	TKT	Cancer_only	1.01	1.76	-0.48	0.21

Q8N442	GUF1	Cancer_only	-1.20	1.46	-0.49	0.57
Q9BRP4	PAAF1	Cancer_only	1.80	2.20	-0.50	1.50
Q9GZN8	C20orf27	Cancer_only	1.63	1.81	-0.51	0.34
P56182	RRP1	Cancer_only	-2.08	2.41	-0.51	0.63
Q2PZI1	DPY19L1	Cancer_only	1.14	1.32	-0.51	1.16
Q8WUX9	CHMP7	Cancer_only	2.22	2.16	-0.52	0.40
P28749	RBL1	Cancer_only	2.40	2.55	-0.54	0.24
Q9Y385	UBE2J1	Cancer_only	-3.47	3.30	-0.55	0.31
O15439	ABCC4	Cancer_only	-1.57	1.52	-0.56	0.76
P08754	GNAI3	Cancer_only	-1.27	1.83	-0.56	1.46
Q12955	ANK3	Cancer_only	-1.16	1.59	-0.58	0.97
P18031	PTPN1	Cancer_only	-1.81	1.62	-0.58	0.71
Q9H7B2	RPF2	Cancer_only	-3.07	1.62	-0.59	0.51
P23246	SFPQ	Cancer_only	-1.72	1.65	-0.60	0.66
P54709	ATP1B3	Cancer_only	-3.29	2.40	-0.60	0.38
O75718	CRTAP	Cancer_only	-1.13	2.01	-0.61	0.22
Q96SI9	STRBP	Cancer_only	-2.08	1.55	-0.61	0.44
P04920	SLC4A2	Cancer_only	-1.91	1.73	-0.62	0.73
O94776	MTA2	Cancer_only	-1.16	1.55	-0.62	1.73
Q8NBU5	ATAD1	Cancer_only	-2.47	1.69	-0.62	0.63
Q13895	BYSL	Cancer_only	-2.27	1.44	-0.63	0.73
Q8NF37	LPCAT1	Cancer_only	-1.75	1.61	-0.65	0.34
P16070	CD44	Cancer_only	-2.09	1.72	-0.66	0.51

P22626	HNRNPA2B1	Cancer_only	-1.46	1.76	-0.66	0.52
Q9UG63	ABCF2	Cancer_only	-1.27	1.36	-0.66	1.01
O60287	URB1	Cancer_only	-1.29	1.43	-0.67	0.57
Q9BTD8	RBM42	Cancer_only	-1.32	2.13	-0.67	1.07
Q9Y508	RNF114	Cancer_only	-1.93	1.91	-0.68	0.28
Q9BSJ5	C17orf80	Cancer_only	-2.10	2.05	-0.68	0.42
Q96E22	NUS1	Cancer_only	-2.82	1.77	-0.69	0.71
P24928	POLR2A	Cancer_only	-1.07	1.95	-0.70	0.62
P42285	SKIV2L2	Cancer_only	-1.35	1.38	-0.70	0.85
Q9H0U9	TSPYL1	Cancer_only	-1.81	2.56	-0.71	0.66
Q14498	RBM39	Cancer_only	-1.11	1.38	-0.71	0.49
P07237	P4HB	Cancer_only	1.07	1.54	-0.71	0.13
Q9HCL2	GPAM	Cancer_only	-1.11	1.34	-0.72	0.54
Q9NUL7	DDX28	Cancer_only	-3.22	1.53	-0.73	0.94
P32320	CDA	Cancer_only	2.42	1.52	-0.73	0.58
Q14739	LBR	Cancer_only	-1.96	1.38	-0.73	1.02
Q9Y324	FCF1	Cancer_only	-1.38	1.61	-0.80	0.84
Q9NTJ5	SACM1L	Cancer_only	-1.30	1.31	-0.80	2.74
Q9Y6M5	SLC30A1	Cancer_only	-1.85	2.02	-0.81	0.81
Q53EP0	FNDC3B	Cancer_only	-1.70	1.72	-0.81	1.56
Q9NWK9	ZNHIT6	Cancer_only	-1.44	1.72	-0.82	0.39
Q15050	RRS1	Cancer_only	-3.03	2.19	-0.84	0.72
P29992	GNA11	Cancer_only	-1.76	1.90	-0.87	2.65

Q8TC12	RDH11	Cancer_only	-1.48	1.43	-0.88	0.44
O00220	TNFRSF10A	Cancer_only	-2.45	1.43	-0.90	2.42
Q9NQC3	RTN4	Cancer_only	-1.12	1.48	-0.90	0.79
Q9UKD1	GMEB2	Cancer_only	-1.60	2.10	-0.90	0.85
Q9UPR0	PLCL2	Cancer_only	1.01	1.41	-0.91	1.74
Q9NR30	DDX21	Cancer_only	-1.97	2.67	-0.91	2.03
Q96KR1	ZFR	Cancer_only	-2.78	1.86	-0.92	0.55
Q9NSI2	FAM207A	Cancer_only	-1.14	1.43	-0.95	1.03
Q9NYH9	UTP6	Cancer_only	-2.28	1.68	-0.95	1.27
P02786	TFRC	Cancer_only	-3.42	1.83	-0.95	1.04
P11387	TOP1	Cancer_only	-2.21	2.95	-0.97	0.73
Q92520	FAM3C	Cancer_only	-2.02	1.94	-0.98	1.18
Q9BYD2	MRPL9	Cancer_only	-3.34	1.53	-0.99	0.54
P57088	TMEM33	Cancer_only	-2.02	1.51	-0.99	0.70
O14966	RAB29	Cancer_only	-1.26	1.48	-0.99	2.83
P62191	PSMC1	CAF_only	-0.28	0.10	-1.00	2.37
ENST00000494076_NCI-H1792_Mis:V226A	TBRG4	CAF_only	-2.54	0.82	-1.00	1.31
Q9P2E9	RRBP1	CAF_only	-1.24	0.69	-1.01	2.26
Q13637	RAB32	Cancer_only	-1.93	1.75	-1.01	0.76
Q9BYD6	MRPL1	Cancer_only	-1.55	1.52	-1.01	0.57
P51843	NR0B1	Cancer_only	-2.75	1.58	-1.02	0.62
Q9BRX2	PELO	CAF_only	0.92	0.37	-1.02	1.54

Q9C0D5	TANC1	CAF_only	-0.08	0.06	-1.02	2.00
A3KN83	SBNO1	CAF_only	-0.55	0.24	-1.03	3.12
Q96DV4	MRPL38	Cancer_only	-2.01	1.61	-1.04	0.61
Q7Z7E8	UBE2Q1	CAF_only	1.08	0.77	-1.05	2.03
Q9Y320	TMX2	Cancer_only	-2.90	1.51	-1.05	0.48
Q9BVS4	RIOK2	Cancer_only	-1.54	1.32	-1.05	0.80
Q8TDN6	BRIX1	CAF_only	-3.28	1.14	-1.05	1.77
ENST00000237536_NCI-H1792_Mis:S1543L	SOGA1	CAF_only	-2.02	0.78	-1.06	1.65
Q9UHD8	Sep-09	CAF_only	-0.27	0.16	-1.06	1.99
Q5SWA1	PPP1R15B	Cancer_only	-1.97	1.39	-1.06	0.67
Q9Y3R5	DOPEY2	CAF_only	-1.63	0.55	-1.07	1.33
Q96TA2	YME1L1	Cancer_only	-2.12	1.36	-1.08	0.63
P78356	PIP4K2B	Cancer_only	1.10	2.22	-1.08	0.91
Q9GZR2	REXO4	Cancer_only	-1.50	2.23	-1.09	0.62
Q96J02	ITCH	CAF_only	-0.77	0.76	-1.09	1.37
Q9H8H0	NOL11	CAF_only	-2.01	1.09	-1.09	1.52
P50416	CPT1A	Cancer_only	-2.31	2.71	-1.10	0.19
P07996	THBS1	CAF_only	-0.37	0.07	-1.11	1.57
Q71RC2	LARP4	CAF_only	-2.00	0.90	-1.11	1.52
O75534	CSDE1	CAF_only	-1.78	0.91	-1.11	2.20
P98175	RBM10	Cancer_only	-1.15	1.87	-1.12	0.53
Q96EX1	SMIM12	CAF_only	-1.37	0.46	-1.12	1.37

P30260	CDC27	CAF_only	-0.12	0.06	-1.13	1.74
Q8TCU6	PREX1	CAF_only	-0.26	0.05	-1.13	1.54
Q9NVS2	MRPS18A	CAF_only	-3.01	0.68	-1.14	1.34
Q14978	NOLC1	CAF_only	-1.80	0.97	-1.14	1.94
P62424	RPL7A	CAF_only	-1.34	0.36	-1.15	1.90
Q7L2E3	DHX30	Cancer_and_CAF	-2.14	2.87	-1.15	2.15
P51114	FXR1	Cancer_and_CAF	-1.60	2.94	-1.16	1.82
Q9BWT3	PAPOLG	CAF_only	-1.43	0.98	-1.17	2.05
P46779	RPL28	CAF_only	-1.13	0.30	-1.17	1.36
P50579	METAP2	CAF_only	-1.73	0.50	-1.17	1.53
Q15047	SETDB1	CAF_only	-0.14	0.10	-1.19	1.41
Q9NY93	DDX56	Cancer_and_CAF	-1.29	1.66	-1.19	1.75
Q8TBB5	KLHDC4	CAF_only	-0.54	0.36	-1.20	1.64
Q96NM4	TOX2	CAF_only	0.93	0.32	-1.20	1.43
Q8TCJ2	STT3B	Cancer_only	-2.66	2.07	-1.20	0.35
Q9Y4B6	VPRBP	CAF_only	-1.20	0.56	-1.21	1.47
P62750	RPL23A	CAF_only	-0.64	0.47	-1.22	2.50
O43251	RBFOX2	CAF_only	0.26	0.25	-1.23	1.44
Q8TEA1	NSUN6	CAF_only	-0.06	0.27	-1.23	2.08
Q9H8H2	DDX31	Cancer_only	-1.29	1.44	-1.23	0.81
Q99541	PLIN2	CAF_only	-3.74	0.75	-1.24	1.36
P26373	RPL13	CAF_only	-0.74	0.36	-1.24	1.71
P50502	ST13	CAF_only	0.87	0.21	-1.24	1.31

Q6UXN9	WDR82	CAF_only	-0.73	0.52	-1.24	2.21
Q13610	PWP1	Cancer_only	-4.11	2.65	-1.25	0.63
Q9NV31	IMP3	CAF_only	-0.60	0.24	-1.28	1.92
P00167	CYB5A	Cancer_only	1.09	1.37	-1.30	1.16
Q9NVR0	KLHL11	CAF_only	-0.90	0.69	-1.30	2.96
P54198	HIRA	Cancer_and_CAF	-2.05	1.69	-1.32	1.41
Q6P1Q9	METTL2B	CAF_only	-0.12	0.05	-1.32	1.66
Q6PCB5	RSBN1L	Cancer_only	-1.68	1.90	-1.33	0.42
Q9C086	INO80B	Cancer_only	-2.95	1.70	-1.35	0.97
Q9NRC1	ST7	Cancer_only	-1.97	1.72	-1.36	0.45
O15372	EIF3H	CAF_only	-1.65	0.62	-1.36	1.96
Q9UNQ2	DIMT1	CAF_only	-1.94	1.14	-1.37	1.73
Q5C9Z4	NOM1	CAF_only	-0.79	0.36	-1.38	1.35
Q9BRT6	LLPH	CAF_only	-2.34	0.83	-1.39	1.66
Q14676	MDC1	Cancer_only	-1.97	1.50	-1.40	1.03
Q7Z5G4	GOLGA7	CAF_only	-1.44	0.62	-1.41	1.48
Q15464	SHB	CAF_only	-1.69	1.24	-1.42	1.48
Q14669	TRIP12	Cancer_only	-2.31	1.55	-1.42	1.24
Q969X6	CIRH1A	CAF_only	-1.52	0.73	-1.44	1.58
Q5VV42	CDKAL1	CAF_only	-0.48	0.32	-1.46	1.86
Q8N128	FAM177A1	Cancer_only	-1.72	1.44	-1.46	0.93
P48960	CD97	Cancer_only	-3.14	1.37	-1.49	0.80
Q5VT06	CEP350	CAF_only	0.21	0.29	-1.49	1.37

P35790	CHKA	Cancer_only	-2.55	1.60	-1.50	0.58
Q9NRZ9	HELLS	Cancer_only	-2.91	1.68	-1.54	1.12
Q13206	DDX10	Cancer_and_CAF	-2.08	2.06	-1.55	2.46
P62277	RPS13	CAF_only	0.07	0.02	-1.58	1.43
Q9BW60	ELOVL1	CAF_only	-1.46	0.88	-1.62	1.70
Q8NEF9	SRFBP1	CAF_only	-1.36	0.47	-1.63	1.75
Q9UEU0	VTI1B	CAF_only	-1.15	1.01	-1.63	1.47
O95905	ECD	CAF_only	-2.71	0.91	-1.64	1.31
Q9Y3B4	SF3B6	CAF_only	-1.45	0.31	-1.66	1.57
Q8WYQ5	DGCR8	CAF_only	-4.87	0.96	-1.67	1.57
Q9UL63	MKLN1	CAF_only	-1.41	0.78	-1.73	1.56
P51572	BCAP31	CAF_only	-1.20	0.30	-1.74	1.49
P17844	DDX5	Cancer_and_CAF	-2.56	1.35	-1.74	1.72
O00571	DDX3X	CAF_only	-1.58	0.46	-1.75	1.34
Q96GA3	LTV1	Cancer_only	-2.57	1.91	-1.77	0.79
O60675	MAFK	Cancer_and_CAF	-1.77	1.43	-1.77	1.49
Q9Y399	MRPS2	CAF_only	-2.92	1.19	-1.77	1.46
Q86X27	RALGPS2	Cancer_only	-3.23	2.07	-1.79	0.40
Q9BVP2	GNL3	CAF_only	-4.95	0.67	-1.84	1.60
Q00534	CDK6	CAF_only	-1.90	0.38	-1.87	2.45
O00767	SCD	Cancer_only	-3.88	1.44	-1.92	0.85
Q9NVN8	GNL3L	Cancer_only	-1.95	1.54	-1.93	1.15
Q13685	AAMP	CAF_only	-1.14	0.20	-1.93	1.33

Q9GZT3	SLIRP	Cancer_only	-4.31	1.67	-1.99	1.09
Q9BT17	MTG1	Cancer_only	-4.03	1.69	-1.99	1.09
Q9BYI3	FAM126A	CAF_only	-0.77	0.16	-2.08	1.70
Q00537	CDK17	Cancer_only	-1.48	2.34	-2.16	0.99
Q13247	SRSF6	CAF_only	-1.82	0.34	-2.18	3.53
Q9Y3C1	NOP16	Cancer_only	-4.13	1.36	-2.20	0.98
Q9HAU5	UPF2	CAF_only	-0.06	0.01	-2.21	2.58
P31689	DNAJA1	CAF_only	-3.40	0.61	-2.22	2.11
Q7Z3E2	CCDC186	CAF_only	-0.16	0.04	-2.30	1.58
O14757	CHEK1	CAF_only	0.36	0.16	-2.31	1.36
Q96T88	UHRF1	Cancer_only	-4.46	1.55	-2.33	0.83
Q53EZ4	CEP55	CAF_only	-1.35	1.18	-2.35	1.45
Q9ULT8	HECTD1	CAF_only	-3.16	1.18	-2.45	1.33
P61353	RPL27	CAF_only	-2.19	0.50	-2.46	1.38
Q9Y448	KNSTRN	CAF_only	-2.42	0.62	-2.63	1.44
P50914	RPL14	CAF_only	-0.43	0.07	-2.71	1.51
Q92522	H1FX	Cancer_only	-4.52	1.83	-2.73	1.02
P84090	ERH	CAF_only	-1.70	0.65	-2.74	2.48
Q9NXW2	DNAJB12	CAF_only	-0.56	0.16	-2.75	1.43
P84022	SMAD3	CAF_only	1.37	0.54	-2.93	2.41
Q96PZ2	FAM111A	CAF_only	-4.30	0.68	-3.06	2.36
Q9BZX2	UCK2	CAF_only	-1.53	0.32	-3.06	1.96
Q9HBU6	ETNK1	CAF_only	-7.65	0.91	-3.16	2.37

Q9UMY1	NOL7	CAF_only	-3.24	0.80	-3.55	1.49
Q9UNZ5	C19orf53	CAF_only	-0.72	0.13	-3.60	1.42
Q9C000	NLRP1	CAF_only	1.64	0.62	-4.09	1.50
P83731	RPL24	CAF_only	-0.43	0.06	-4.14	1.31
P10412	HIST1H1E	Cancer_only	-5.59	3.10	-4.43	0.74
P16402	HIST1H1D	Cancer_only	-8.20	1.45	-4.67	1.00
P16403	HIST1H1C	Cancer_only	-9.93	2.65	-5.49	0.63

Appendix table 14- Phosphoproteome changes with methotrexate in cancer or CAF CM

Accession	Phosphoprotein	Significant change in	Log_2(Drug/DMSO) in Cancer CM	$-Log_{10}$(p value) in Cancer CM	Log_2(Drug/DMSO) in CAF CM	$-Log_{10}$(p value) in CAF CM
Q92878 1xPhospho [T690]	RAD50 T690	Cancer_only	7.85	1.39	9.51	1.00
Q9BXW9 1xPhospho [S717]	FANCD2 S717	Cancer_only	6.11	1.42	7.48	0.99
Q9NVI1 1xPhospho [T952]	FANCI T952	Cancer_only	5.09	1.38	6.44	1.09
P43351 2xPhospho [T318;T324]	RAD52 T318;T324	CAF_only	4.36	0.85	6.20	2.40
Q9Y618 1xPhospho [S516]	NCOR2 S516	Cancer_only	4.35	1.76	6.20	0.79
Q8N4S0 1xPhospho [S131];1xPhospho [S154]	CCDC82 S131;S154	Cancer_only	4.56	1.99	5.75	0.92
Q99590 [526-538]	SCAF11 526-538	Cancer_and_CAF	4.40	1.53	5.68	1.32
Q14978 [620-626]	NOLC1 620-626	CAF_only	0.81	0.05	5.52	1.51
Q92966 1xPhospho [S74]	SNAPC3 S74	Cancer_only	4.17	1.46	5.51	0.69
Q14683 1xPhospho [S360]	SMC1A S360	Cancer_only	4.11	2.06	5.46	0.74
Q9NYF8 1xPhospho [S183]	BCLAF1 S183	Cancer_only	3.55	1.89	5.20	0.84
Q9BV36 1xPhospho [S463]	MLPH S463	Cancer_only	6.04	1.32	5.14	0.99
Q9NYF8 1xPhospho [T341]	BCLAF1 T341	Cancer_only	4.01	2.16	5.12	1.19
Q9BX63 1xPhospho [S226]	BRIP1 S226	Cancer_only	4.05	1.36	5.01	0.81
Q8N4S0 1xPhospho [S154]	CCDC82 S154	Cancer_and_CAF	3.88	1.42	4.99	1.39
P38398 2xPhospho [S1497;S1503]	BRCA1 S1497;S1503	Cancer_and_CAF	4.07	1.72	4.81	1.77
Q99708 1xPhospho [S555]	RBBP8 S555	Cancer_only	2.42	1.39	4.74	0.92
Q9NVI1 1xPhospho [S730]	FANCI S730	CAF_only	4.27	1.18	4.67	2.38
P52597 [180-192]	HNRNPF 180-192	Cancer_only	3.71	2.59	4.41	0.84
Q12888 1xPhospho [T855]	TP53BP1 T855	Cancer_only	2.83	1.47	4.39	1.17
P23497 1xPhospho [S231]	SP100 S231	Cancer_only	4.14	1.96	4.33	0.98
Q8WXD5 1xPhospho [S166]	GEMIN6 S166	Cancer_only	1.45	2.45	4.26	0.73

P78347 1xPhospho [S517]	GTF2I S517	Cancer_only	1.36	1.80	4.24	0.74
Q99575 1xPhospho [S367]	POP1 S367	Cancer_only	3.66	1.54	4.21	1.16
Q04637 1xPhospho [S1194]	EIF4G1 S1194	Cancer_only	2.51	1.73	4.17	0.63
Q9UKE5 1xPhospho [S541]	TNIK S541	Cancer_only	2.51	1.73	4.17	0.63
O60934 1xPhospho [S615]	NBN S615	Cancer_only	4.07	2.24	4.16	1.03
O95602 1xPhospho [S1489]	POLR1A S1489	Cancer_only	5.56	1.64	4.16	1.27
Q9NVI1 1xPhospho [T1114]	FANCI T1114	Cancer_only	3.57	1.70	4.13	1.15
Q9NTI5 1xPhospho [S1334]	PDS5B S1334	Cancer_only	2.85	1.59	4.08	0.81
P38398 1xPhospho [S425]	BRCA1 S425	Cancer_only	4.34	1.72	4.02	1.00
Q9BVJ6 1xPhospho [S445]	UTP14A S445	Cancer_only	1.64	2.47	4.01	1.01
Q14191 1xPhospho [S1141]	WRN S1141	CAF_only	2.58	0.79	3.89	1.35
P38398 1xPhospho [S1524]	BRCA1 S1524	Cancer_only	3.48	1.73	3.80	1.12
Q9NVI1 1xPhospho [S1312]	FANCI S1312	Cancer_and_CAF	3.81	2.04	3.73	1.46
Q96RL1 1xPhospho [S101]	UIMC1 S101	Cancer_only	3.03	1.68	3.69	0.76
Q13535 1xPhospho [T1989]	ATR T1989	Cancer_only	4.08	1.49	3.67	1.06
Q9H0E9 1xPhospho [S621]	BRD8 S621	CAF_only	2.10	0.84	3.61	1.36
Q9UQ84 [744-754]	EXO1 744-754	Cancer_only	3.96	1.79	3.59	0.46
Q9UNF1 1xPhospho [S162]	MAGED2 S162	Cancer_only	3.83	1.94	3.54	0.98
Q9UQ35 2xPhospho [S1232;S1233]	SRRM2 S1232;S1233	Cancer_only	2.44	1.73	3.52	0.82
Q9P270 2xPhospho [S353;S357]	SLAIN2 S353;S357	CAF_only	2.04	0.64	3.40	1.30
Q9NZT2 2xPhospho [S361;S378]	OGFR S361;S378	CAF_only	1.94	0.51	3.37	1.31
Q12888 1xPhospho [S1068]	TP53BP1 S1068	Cancer_only	1.70	1.96	3.36	0.86
Q15056 1xPhospho [S21]	EIF4H S21	CAF_only	1.69	0.10	3.36	1.95
Q9Y2M0 2xPhospho [S197;S210]	FAN1 S197;S210	Cancer_and_CAF	2.40	1.80	3.36	1.43
Q03188 1xPhospho [S709]	CENPC S709	Cancer_and_CAF	4.04	1.32	3.34	3.85
Q6WKZ4 1xPhospho [S384]	RAB11FIP1 S384	Cancer_only	2.00	1.42	3.34	0.42

Q9Y2W1 1xPhospho [S243]	THRAP3 S243	CAF_only	-1.30	0.22	3.34	1.60
P43243 1xPhospho [S615]	MATR3 S615	Cancer_and_CAF	1.79	1.49	3.32	1.74
Q86UU0 2xPhospho [S116;S118]	BCL9L S116;S118	CAF_only	2.54	0.70	3.31	1.97
Q01831 1xPhospho [S347]	XPC S347	CAF_only	2.30	1.28	3.31	1.63
Q13796 [227-246]	SHROOM2 227-246	CAF_only	-0.20	0.03	3.30	1.85
Q1KMD3 1xPhospho [S193]	HNRNPUL2 S193	CAF_only	0.14	0.02	3.29	1.30
Q9ULF5 2xPhospho [T536;S539]	SLC39A10 T536;S539	Cancer_only	2.52	2.04	3.27	0.47
Q9UQ35 [1224-1244]	SRRM2 1224-1244	Cancer_only	2.13	1.33	3.23	1.07
P47712 1xPhospho [S729]	PLA2G4A S729	Cancer_only	2.63	2.48	3.20	0.40
P10155 1xPhospho [S19]	TROVE2 S19	Cancer_only	2.77	1.83	3.20	0.85
Q9NVI1 1xPhospho [S1121]	FANCI S1121	CAF_only	2.36	0.88	3.18	2.30
O95466 1xPhospho [S211]	FMNL1 S211	CAF_only	2.52	0.26	3.17	1.92
Q14676 1xPhospho [S955]	MDC1 S955	CAF_only	0.01	0.01	3.17	1.33
Q92878 1xPhospho [S635]	RAD50 S635	Cancer_only	2.14	1.58	3.16	0.90
Q8NA72 [101-111]	POC5 101-111	Cancer_and_CAF	3.49	1.47	3.13	1.97
Q8NB91 1xPhospho [T555]	FANCB T555	CAF_only	3.35	0.78	3.13	2.17
P51532 1xPhospho [S1382]	SMARCA4 S1382	Cancer_only	3.09	2.46	3.12	0.47
Q9BWU0 1xPhospho [S712]	SLC4A1AP S712	Cancer_only	3.40	1.72	3.11	1.01
Q13315 1xPhospho [S1981]	ATM S1981	Cancer_and_CAF	3.22	1.60	3.08	1.31
Q99612 1xPhospho [S192]	KLF6 S192	Cancer_only	1.99	1.68	3.06	0.61
P54132 [138-167]	BLM 138-167	CAF_only	3.07	0.98	3.04	1.68
Q9NV70 1xPhospho [S482]	EXOC1 S482	CAF_only	-0.44	0.04	3.01	2.14
O43719 2xPhospho [S713;S714]	HTATSF1 S713;S714	Cancer_and_CAF	3.59	1.32	3.00	1.76
Q9NQW6 1xPhospho [S323]	ANLN S323	Cancer_only	3.07	1.78	2.96	0.90
Q8N5P1 1xPhospho [T32]	ZC3H8 T32	Cancer_and_CAF	1.31	2.14	2.94	2.09
Q9UQ35 1xPhospho [T1492]	SRRM2 T1492	CAF_only	0.40	0.06	2.94	2.48

O94880 1xPhospho [S294]	PHF14 S294	Cancer_only	1.96	1.65	2.93	0.69
Q6UUV7 1xPhospho [S329]	CRTC3 S329	CAF_only	3.90	1.10	2.90	1.38
Q9HAW4 2xPhospho [S65;S67]	CLSPN S65;S67	Cancer_and_CAF	1.81	1.67	2.86	1.76
Q12888 1xPhospho [S580]	TP53BP1 S580	Cancer_and_CAF	1.54	1.48	2.83	1.60
Q8WWI1 2xPhospho [S276;T278]	LMO7 S276;T278	CAF_only	0.12	0.57	2.82	1.33
Q86U06 1xPhospho [S128]	RBM23 S128	CAF_only	1.72	0.24	2.82	1.39
Q8IW35 1xPhospho [S500]	CEP97 S500	CAF_only	1.79	0.56	2.80	1.37
Q12852 1xPhospho [S634]	MAP3K12 S634	CAF_only	1.65	0.75	2.80	2.10
Q9HAW4 1xPhospho [S1156]	CLSPN S1156	Cancer_only	2.68	1.55	2.75	0.76
Q9UNS1 1xPhospho [S1039]	TIMELESS S1039	CAF_only	0.65	0.44	2.74	2.03
Q70CQ2 [1457-1481]	USP34 1457-1481	Cancer_and_CAF	2.60	1.74	2.74	1.37
O15164 1xPhospho [S744]	TRIM24 S744	Cancer_and_CAF	3.09	1.83	2.73	1.99
Q1ED39 1xPhospho [T310]	KNOP1 T310	CAF_only	1.24	0.69	2.73	1.55
Q9H1E3 1xPhospho [S54]	NUCKS1 S54	Cancer_only	2.76	1.45	2.71	0.60
P49674 1xPhospho [S363]	CSNK1E S363	Cancer_only	-1.31	1.46	2.68	0.52
P20810 1xPhospho [S577]	CAST S577	Cancer_only	4.81	1.42	2.68	0.60
A0JNW5 1xPhospho [S752]	UHRF1BP1L S752	Cancer_only	2.44	1.69	2.65	0.71
Q9NRL2 1xPhospho [T731]	BAZ1A T731	CAF_only	1.72	1.03	2.64	2.06
Q13428 1xPhospho [S1410]	TCOF1 S1410	Cancer_and_CAF	4.14	1.59	2.63	1.50
O60266 1xPhospho [S580]	ADCY3 S580	Cancer_only	1.42	1.68	2.62	1.22
Q14669 1xPhospho [T1377]	TRIP12 T1377	CAF_only	2.00	1.11	2.60	1.68
Q76FK4 2xPhospho [S325;S/T]	NOL8 S325;S/T	CAF_only	1.29	0.87	2.58	1.80
Q9BUQ8 2xPhospho [S109;S]	DDX23 S109;S	CAF_only	-1.26	0.91	2.57	1.74
P38398 1xPhospho [S434]	BRCA1 S434	CAF_only	2.08	1.02	2.56	1.53
Q96RL1 2xPhospho [S463;S466]	UIMC1 S463;S466	Cancer_and_CAF	2.92	3.62	2.55	1.42
Q96M89 1xPhospho [S49]	CCDC138 S49	Cancer_only	2.15	1.81	2.54	0.63

P49736 2xPhospho [S27;S/T]	MCM2 S27;S/T	CAF_only	2.98	0.92	2.53	1.40
Q9C0B5 2xPhospho [S584;S593]	ZDHHC5 S584;S593	Cancer_and_CAF	1.12	1.57	2.53	1.44
Q9NYZ3 1xPhospho [S583]	GTSE1 S583	CAF_only	3.79	1.22	2.53	1.84
P10451 2xPhospho [S195;T/S/Y]	SPP1 S195;T/S/Y	Cancer_only	1.90	1.91	2.51	0.75
Q13427 2xPhospho [S356;T358]	PPIG S356;T358	CAF_only	1.03	0.20	2.50	1.89
Q9Y2M0 1xPhospho [S210]	FAN1 S210	CAF_only	2.29	0.93	2.49	1.42
Q15311 1xPhospho [S62]	RALBP1 S62	Cancer_only	4.01	1.35	2.48	0.84
O43719 1xPhospho [S713]	HTATSF1 S713	Cancer_and_CAF	2.60	1.31	2.48	1.66
Q8N442 1xPhospho [S124]	GUF1 S124	Cancer_only	2.00	2.15	2.48	0.48
P62633 1xPhospho [S12]	CNBP S12	Cancer_only	2.72	1.43	2.46	0.52
Q9Y6J0 [2188-2220]	CABIN1 2188-2220	CAF_only	2.14	0.61	2.45	1.32
Q9BXW9 1xPhospho [S880]	FANCD2 S880	CAF_only	1.16	0.51	2.45	1.86
Q8TBN0 1xPhospho [S179]	RAB3IL1 S179	Cancer_only	3.07	1.45	2.45	0.79
Q9NWB6 1xPhospho [S76]	ARGLU1 S76	Cancer_and_CAF	-1.09	1.45	2.45	2.24
Q8TEK3 1xPhospho [S448]	DOT1L S448	CAF_only	1.68	0.41	2.45	1.34
Q9NV79 1xPhospho [S306]	PCMTD2 S306	CAF_only	2.62	0.94	2.42	1.36
P27707 1xPhospho [S74]	DCK S74	Cancer_only	3.50	1.60	2.42	0.86
P40763 2xPhospho [T714;S727]	STAT3 T714;S727	CAF_only	0.07	1.16	2.41	2.31
Q96T60 2xPhospho [S114;T118]	PNKP S114;T118	Cancer_only	2.75	1.35	2.41	0.73
Q9HAW4 1xPhospho [S225]	CLSPN S225	CAF_only	2.07	0.83	2.41	1.78
Q9NQW6 [95-127]	ANLN 95-127	CAF_only	0.72	0.18	2.40	1.67
P09012 1xPhospho [S115]	SNRPA S115	Cancer_only	1.88	1.44	2.40	0.50
Q7Z3T8 1xPhospho [S79]	ZFYVE16 S79	Cancer_only	1.36	1.51	2.39	0.52
P43243 1xPhospho [S596]	MATR3 S596	Cancer_only	1.08	2.14	2.39	0.87
Q9UQ35 2xPhospho [S1441;S1443]	SRRM2 S1441;S1443	Cancer_and_CAF	2.02	1.72	2.39	2.26
P53814 1xPhospho [S245]	SMTN S245	Cancer_only	2.42	1.71	2.38	0.88

Q06481 2xPhospho [S213;Y233]	APLP2 S213;Y233	CAF_only	0.99	0.71	2.38	1.31
Q9H5P4 1xPhospho [S436]	PDZD7 S436	CAF_only	1.56	0.70	2.37	1.81
P49792 1xPhospho [S955]	RANBP2 S955	CAF_only	0.40	0.33	2.36	1.42
Q8N1F8 1xPhospho [S761]	STK11IP S761	Cancer_only	-1.02	3.61	2.35	0.50
Q9UMN6 1xPhospho [S844]	KMT2B S844	Cancer_only	1.82	2.41	2.35	0.75
P53814 1xPhospho [S576]	SMTN S576	Cancer_only	2.87	1.73	2.34	0.84
ENST00000237536_NCI-H1792_Mis:S1543L 1xPhospho [S1255]	SOGA1 S1255	CAF_only	-0.55	0.18	2.33	1.97
O94964 1xPhospho [S1017]	SOGA1 S1017	CAF_only	-0.55	0.18	2.33	1.97
Q9Y2M0 1xPhospho [S180]	FAN1 S180	CAF_only	0.72	1.16	2.33	1.72
Q15149 1xPhospho [S919]	PLEC S919	Cancer_and_CAF	1.58	1.35	2.33	1.56
P07197 1xPhospho [S672]	NEFM S672	CAF_only	0.43	0.29	2.32	1.33
Q6EMB2 1xPhospho [S585]	TTLL5 S585	Cancer_only	3.54	3.50	2.31	0.41
Q9NYP3 1xPhospho [S361]	DONSON S361	Cancer_only	2.76	1.62	2.31	0.90
Q9H2Y7 1xPhospho [S661]	ZNF106 S661	Cancer_only	1.18	1.51	2.30	0.35
Q6Y7W6 1xPhospho [S236]	GIGYF2 S236	CAF_only	1.64	0.21	2.30	1.44
P18433 2xPhospho [S189;S193]	PTPRA S189;S193	CAF_only	0.61	0.77	2.29	1.45
Q92794 1xPhospho [T1144]	KAT6A T1144	CAF_only	0.06	0.06	2.28	1.86
Q9Y5B0 [405-434]	CTDP1 405-434	Cancer_only	2.96	2.00	2.27	0.60
Q6NWY9 1xPhospho [S852]	PRPF40B S852	CAF_only	0.28	0.09	2.26	1.43
P48681 [1455-1474]	NES 1455-1474	CAF_only	0.73	0.31	2.26	1.75
Q96RU2 1xPhospho [S375]	USP28 S375	Cancer_only	2.44	2.14	2.24	0.37
Q9NTI5 2xPhospho [S1406;S/T]	PDS5B S1406;S/T	Cancer_only	-1.91	2.20	2.24	0.28
Q96BD0 1xPhospho [S40]	SLCO4A1 S40	CAF_only	0.54	0.09	2.23	1.70
Q9Y2R4 1xPhospho [S99]	DDX52 S99	CAF_only	0.35	0.24	2.23	1.50
Q8IYB3 1xPhospho [S646]	SRRM1 S646	Cancer_only	1.40	1.45	2.22	0.32
Q7Z2Z1 1xPhospho [S1045]	TICRR S1045	Cancer_only	5.03	1.47	2.22	0.83

Q8N3X1 1xPhospho [S499]	FNBP4 S499	CAF_only	0.34	0.34	2.20	1.32
Q9P1Y6 1xPhospho [S101]	PHRF1 S101	CAF_only	1.80	0.64	2.20	1.86
Q9UBZ9 1xPhospho [S1108]	REV1 S1108	Cancer_and_CAF	1.75	1.34	2.19	1.39
Q6WKZ4 1xPhospho [S280]	RAB11FIP1 S280	CAF_only	-0.70	0.68	2.18	1.50
Q99708 1xPhospho [S568]	RBBP8 S568	Cancer_and_CAF	1.49	1.52	2.18	2.33
Q76N32 1xPhospho [S472]	CEP68 S472	CAF_only	0.98	2.38	2.14	1.89
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S2014]	MAP1A S2014	Cancer_only	2.79	1.43	2.14	0.88
P78559 1xPhospho [S1776]	MAP1A S1776	Cancer_only	2.79	1.43	2.14	0.88
O75376 1xPhospho [S158]	NCOR1 S158	Cancer_and_CAF	1.30	1.45	2.13	1.74
P49792 2xPhospho [S2626;T2639]	RANBP2 S2626;T2639	CAF_only	-0.01	0.02	2.13	1.56
Q06481 1xPhospho [S213]	APLP2 S213	CAF_only	1.08	0.49	2.12	2.57
O60841 1xPhospho [T301]	EIF5B T301	Cancer_and_CAF	2.81	3.09	2.12	1.47
Q96BT3 1xPhospho [S47]	CENPT S47	CAF_only	-0.70	0.46	2.11	1.88
Q09666 1xPhospho [S5739]	AHNAK S5739	CAF_only	-0.64	0.55	2.10	1.33
P38398 [409-428]	BRCA1 409-428	CAF_only	-0.14	2.13	2.07	1.30
Q96QT6 1xPhospho [S142]	PHF12 S142	Cancer_only	2.93	1.57	2.07	0.49
O00479 1xPhospho [S80]	HMGN4 S80	CAF_only	1.03	0.38	2.05	3.90
Q86U44 1xPhospho [S350]	METTL3 S350	Cancer_only	2.00	1.57	2.04	0.91
Q9UIG0 [151-175]	BAZ1B 151-175	CAF_only	0.51	1.73	2.04	2.19
Q9UKA4 1xPhospho [S448]	AKAP11 S448	CAF_only	1.45	0.82	2.03	1.43
Q9H4L7 1xPhospho [S254]	SMARCAD1 S254	CAF_only	0.96	0.82	2.03	2.08
P15408 1xPhospho [S19]	FOSL2 S19	Cancer_only	1.73	1.49	2.02	0.48
Q71F23 [226-244]	CENPU 226-244	CAF_only	-0.49	0.28	2.01	1.59
P08559 2xPhospho [S293;S300]	PDHA1 S293;S300	Cancer_only	2.92	1.39	2.01	0.63

ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S2902]	MAP1A S2902	Cancer_only	2.84	1.86	1.99	0.60
P78559 1xPhospho [S2664]	MAP1A S2664	Cancer_only	2.84	1.86	1.99	0.60
Q9Y2W1 2xPhospho [S406;S408]	THRAP3 S406;S408	CAF_only	0.74	0.60	1.99	1.97
Q00587 1xPhospho [S303]	CDC42EP1 S303	CAF_only	1.21	0.68	1.99	1.46
Q9BX79 1xPhospho [S605]	STRA6 S605	Cancer_only	1.08	1.69	1.99	0.66
P67809 2xPhospho [S165;S174]	YBX1 S165;S174	CAF_only	1.96	0.88	1.97	1.45
Q8TDX7 1xPhospho [S195]	NEK7 S195	Cancer_only	2.03	1.49	1.97	0.91
Q4ZIN3 1xPhospho [T29]	TMEM259 T29	CAF_only	0.94	1.24	1.95	1.63
Q9BVS4 1xPhospho [S390]	RIOK2 S390	CAF_only	1.16	0.68	1.95	1.52
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S2260]	MAP1A S2260	Cancer_and_CAF	2.25	1.40	1.95	2.60
P78559 1xPhospho [S2022]	MAP1A S2022	Cancer_and_CAF	2.25	1.40	1.95	2.60
Q9HCK8 1xPhospho [S1995]	CHD8 S1995	CAF_only	1.95	1.06	1.95	1.44
Q6PD62 2xPhospho [S1097;S1102]	CTR9 S1097;S1102	Cancer_only	-3.48	2.74	1.94	0.15
Q8WUM9 2xPhospho [S463;S478]	SLC20A1 S463;S478	CAF_only	0.70	0.88	1.93	1.71
Q9BTC8 1xPhospho [S430]	MTA3 S430	CAF_only	1.05	0.37	1.91	1.36
Q8NAN2 2xPhospho [S122;S129]	FAM73A S122;S129	Cancer_and_CAF	1.41	2.24	1.91	1.40
P19338 1xPhospho [S356]	NCL S356	CAF_only	0.05	0.07	1.90	1.45
Q5VZ89 1xPhospho [S989]	DENND4C S989	CAF_only	2.18	0.72	1.90	3.04
Q86U42 1xPhospho [S95]	PABPN1 S95	CAF_only	1.29	0.79	1.89	1.63
Q14978 1xPhospho [S432]	NOLC1 S432	CAF_only	0.11	0.02	1.89	2.00
P38398 1xPhospho [S632]	BRCA1 S632	CAF_only	1.70	0.85	1.88	2.02
Q9NRR5 1xPhospho [S318]	UBQLN4 S318	CAF_only	1.38	0.96	1.88	1.81
O75387 2xPhospho [S262;S267]	SLC43A1 S262;S267	CAF_only	0.17	0.12	1.87	1.56
P49368 1xPhospho [S252]	CCT3 S252	CAF_only	2.49	1.14	1.86	2.54

Q9UPN4 2xPhospho [S89;S105]	CEP131 S89;S105	Cancer_only	2.51	1.87	1.86	1.24
Q15629 1xPhospho [S365]	TRAM1 S365	CAF_only	0.86	0.54	1.85	2.01
P06493 1xPhospho [T161]	CDK1 T161	CAF_only	1.74	0.75	1.85	1.76
O95816 1xPhospho [S31]	BAG2 S31	CAF_only	-1.38	0.42	1.85	1.34
Q96ST8 1xPhospho [S114]	CEP89 S114	CAF_only	1.26	0.47	1.85	1.53
Q9BW85 1xPhospho [S322]	CCDC94 S322	CAF_only	-0.12	0.03	1.83	1.53
Q9UQ35 2xPhospho [S435;S440]	SRRM2 S435;S440	Cancer_only	1.38	1.32	1.83	0.64
Q9ULW0 1xPhospho [S186]	TPX2 S186	Cancer_only	1.13	1.90	1.83	0.99
Q76N32 2xPhospho [S472;S478]	CEP68 S472;S478	Cancer_only	1.23	1.93	1.82	0.62
Q6KC79 1xPhospho [S280]	NIPBL S280	CAF_only	1.08	0.60	1.82	1.76
Q9H2Y7 1xPhospho [S1279]	ZNF106 S1279	CAF_only	0.26	0.27	1.81	1.47
P28749 1xPhospho [S964]	RBL1 S964	Cancer_only	-1.10	1.62	1.81	0.62
P49792 [2824-2836]	RANBP2 2824-2836	Cancer_only	1.17	1.47	1.79	0.87
Q14684 2xPhospho [S395;S]	RRP1B S395;S	CAF_only	0.90	1.29	1.79	1.83
Q969V6 [145-168]	MKL1 145-168	CAF_only	3.80	0.35	1.78	1.68
P22466 1xPhospho [S116]	GAL S116	CAF_only	-0.30	0.24	1.77	1.90
O94804 1xPhospho [T952]	STK10 T952	Cancer_only	2.91	1.95	1.77	0.73
Q9H9J4 2xPhospho [S1166;S1170]	USP42 S1166;S1170	CAF_only	1.40	0.67	1.76	1.91
Q8NEM2 1xPhospho [S273]	SHCBP1 S273	CAF_only	1.69	0.86	1.74	1.50
Q96A00 1xPhospho [S26]	PPP1R14A S26	Cancer_only	2.54	1.74	1.74	0.51
O15037 1xPhospho [S353]	KHNYN S353	CAF_only	0.00	0.00	1.73	1.82
Q658Y4 1xPhospho [S828]	FAM91A1 S828	CAF_only	0.30	0.23	1.73	1.45
P38398 1xPhospho [S114]	BRCA1 S114	CAF_only	0.96	0.39	1.72	1.66
Q96NE9 1xPhospho [S544]	FRMD6 S544	Cancer_and_CAF	3.08	3.20	1.71	1.41
Q5M775 1xPhospho [S914]	SPECC1 S914	CAF_only	0.68	0.56	1.71	1.47
Q8TER5 1xPhospho [S262]	ARHGEF40 S262	Cancer_only	2.14	1.35	1.70	1.08

Q7KZI7 1xPhospho [S486]	MARK2 S486	CAF_only	1.24	0.28	1.70	1.47
Q15811 1xPhospho [S986]	ITSN1 S986	Cancer_only	2.14	2.51	1.69	0.83
Q8N5V2 1xPhospho [S696]	NGEF S696	Cancer_and_CAF	2.77	1.65	1.69	1.53
O95602 1xPhospho [T360]	POLR1A T360	CAF_only	1.33	0.80	1.68	1.52
Q9UHB7 1xPhospho [S706]	AFF4 S706	CAF_only	0.87	0.68	1.68	3.59
P49736 1xPhospho [S108]	MCM2 S108	Cancer_only	1.29	1.71	1.68	0.68
O94929 1xPhospho [S493]	ABLIM3 S493	CAF_only	-0.25	0.35	1.68	1.98
Q8NAN2 1xPhospho [S242]	FAM73A S242	CAF_only	-0.39	0.24	1.67	1.41
P46821 1xPhospho [S977]	MAP1B S977	CAF_only	0.31	1.32	1.67	2.08
O15061 2xPhospho [S1044;S1049]	SYNM S1044;S1049	Cancer_only	-1.11	1.58	1.67	0.45
Q8NG08 1xPhospho [S1048]	HELB S1048	Cancer_only	3.60	1.58	1.66	0.48
Q8WXE0 1xPhospho [S927]	CASKIN2 S927	CAF_only	1.52	0.82	1.66	1.50
P13521 1xPhospho [S556]	SCG2 S556	CAF_only	2.64	0.71	1.66	1.31
O00505 [50-67]	KPNA3 50-67	CAF_only	2.22	0.98	1.66	2.27
Q9NR28 1xPhospho [S230]	DIABLO S230	CAF_only	0.35	0.57	1.65	1.64
Q9ULV3 1xPhospho [T645]	CIZ1 T645	Cancer_only	1.01	2.13	1.63	0.61
Q96JG9 1xPhospho [S1404]	ZNF469 S1404	CAF_only	0.11	0.06	1.63	1.35
Q12888 2xPhospho [S625;S630]	TP53BP1 S625;S630	CAF_only	-0.08	0.01	1.63	1.84
Q9NPI6 1xPhospho [T311]	DCP1A T311	CAF_only	0.34	0.29	1.63	1.44
P53680 1xPhospho [S140]	AP2S1 S140	Cancer_only	-2.82	1.59	1.62	0.20
Q9NPE2 1xPhospho [S41]	NGRN S41	Cancer_only	-1.84	1.79	1.62	1.24
P50454 1xPhospho [S141]	SERPINH1 S141	Cancer_only	2.70	2.10	1.62	0.42
Q8NFC6 1xPhospho [S2843]	BOD1L1 S2843	CAF_only	2.52	1.19	1.61	1.70
Q9NR12 1xPhospho [S111]	PDLIM7 S111	CAF_only	1.50	0.65	1.61	1.73
Q5T200 1xPhospho [S877]	ZC3H13 S877	CAF_only	0.60	0.13	1.61	1.35
Q9BZ71 2xPhospho [S295;S/T]	PITPNM3 S295;S/T	CAF_only	-0.70	1.10	1.61	2.08

Q3L8U1 2xPhospho [S2058;S2059]	CHD9 S2058;S2059	Cancer_only	2.23	1.61	1.61	1.11
Q5VYS8 1xPhospho [S172]	ZCCHC6 S172	Cancer_only	1.90	1.48	1.61	0.80
Q9H4L7 1xPhospho [S211]	SMARCAD1 S211	Cancer_only	1.13	1.31	1.61	0.92
Q9H4L7 1xPhospho [S146]	SMARCAD1 S146	Cancer_and_CAF	1.66	1.37	1.60	1.31
P21580 [440-477]	TNFAIP3 440-477	Cancer_only	1.93	1.90	1.60	0.74
Q96GY3 [133-156]	LIN37 133-156	CAF_only	2.40	0.81	1.60	1.60
Q8NEN9 1xPhospho [S967]	PDZD8 S967	CAF_only	0.44	0.37	1.59	2.23
Q9P0K7 [326-355]	RAI14 326-355	CAF_only	1.37	0.92	1.59	1.44
Q9HCK8 1xPhospho [S2018]	CHD8 S2018	CAF_only	0.18	0.63	1.59	1.58
O75410 [50-71]	TACC1 50-71	CAF_only	0.64	0.54	1.57	1.44
Q6NSJ2 1xPhospho [S254]	PHLDB3 S254	CAF_only	1.22	0.89	1.57	1.56
Q8TEK3 1xPhospho [S1035]	DOT1L S1035	CAF_only	1.54	1.15	1.57	2.16
Q9NTI5 1xPhospho [S1166]	PDS5B S1166	Cancer_only	1.45	1.56	1.57	0.71
Q9BW71 2xPhospho [S332;S333]	HIRIP3 S332;S333	CAF_only	0.77	0.73	1.57	2.77
Q6P0N0 [1109-1132]	MIS18BP1 1109-1132	CAF_only	-1.50	0.69	1.57	1.60
Q6BDS2 1xPhospho [S922]	UHRF1BP1 S922	Cancer_only	1.41	2.39	1.56	1.22
Q9BTX7 1xPhospho [S16]	TTPAL S16	Cancer_only	3.48	1.59	1.56	1.04
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S1384]	MAP1A S1384	Cancer_only	1.75	1.91	1.56	0.94
P78559 1xPhospho [S1146]	MAP1A S1146	Cancer_only	1.75	1.91	1.56	0.94
P82970 1xPhospho [S93]	HMGN5 S93	CAF_only	1.35	0.61	1.56	2.60
Q8N108 2xPhospho [S52;S53]	MIER1 S52;S53	Cancer_only	1.63	1.76	1.56	1.00
Q9Y3Z3 2xPhospho [T21;S33]	SAMHD1 T21;S33	Cancer_only	1.83	1.69	1.56	0.63
Q9NYL2 [684-693]	ZAK 684-693	CAF_only	-0.63	0.32	1.56	1.33
Q9NWH9 1xPhospho [S923]	SLTM S923	CAF_only	0.05	0.21	1.56	1.33
Q9BVS4 1xPhospho [S350]	RIOK2 S350	Cancer_only	2.00	1.84	1.56	0.68

P28749 1xPhospho [T385]	RBL1 T385	CAF_only	1.75	0.80	1.55	1.55
Q8N5Y2 2xPhospho [T334;S/T]	MSL3 T334;S/T	CAF_only	0.07	0.02	1.55	1.39
Q3V6T2 1xPhospho [S1653]	CCDC88A S1653	Cancer_only	2.41	2.25	1.54	1.21
Q8IU81 1xPhospho [S66]	IRF2BP1 S66	CAF_only	1.42	1.03	1.54	1.47
Q14004 1xPhospho [S1048]	CDK13 S1048	Cancer_only	3.03	1.41	1.54	0.71
Q9UNF1 [262-274]	MAGED2 262-274	Cancer_and_CAF	2.42	1.48	1.54	1.41
P08581 1xPhospho [S990]	MET S990	CAF_only	-0.11	0.11	1.53	1.41
Q8WVJ9 1xPhospho [S44]	TWIST2 S44	CAF_only	2.18	1.30	1.53	1.59
Q8WWY3 2xPhospho [S439;T440]	PRPF31 S439;T440	CAF_only	-0.41	0.09	1.52	1.64
Q9Y3R0 1xPhospho [S762]	GRIP1 S762	CAF_only	1.71	0.73	1.52	1.31
Q9P1Y6 2xPhospho [S1359;S1360]	PHRF1 S1359;S1360	CAF_only	1.78	0.84	1.52	1.37
P24941 1xPhospho [T160]	CDK2 T160	CAF_only	2.02	1.05	1.50	1.62
Q14839 1xPhospho [S85]	CHD4 S85	CAF_only	-1.66	0.23	1.50	2.23
Q9UKV5 [507-536]	AMFR 507-536	CAF_only	0.99	0.38	1.50	1.88
Q8IYD8 1xPhospho [S34]	FANCM S34	CAF_only	0.54	0.18	1.50	1.45
Q9Y4G8 1xPhospho [S1095]	RAPGEF2 S1095	Cancer_only	1.81	2.04	1.50	0.45
Q99592 1xPhospho [S333]	ZBTB18 S333	CAF_only	0.50	0.11	1.50	1.43
Q8WUB8 1xPhospho [S327]	PHF10 S327	CAF_only	0.50	0.16	1.49	1.88
Q9NYV4 2xPhospho [S334;S]	CDK12 S334;S	CAF_only	-0.36	0.22	1.49	1.31
Q96S55 2xPhospho [S151;S153]	WRNIP1 S151;S153	CAF_only	-0.27	0.34	1.49	2.76
Q641Q2 1xPhospho [S1054]	FAM21A S1054	CAF_only	0.98	0.55	1.49	2.08
Q684P5 1xPhospho [S558]	RAP1GAP2 S558	Cancer_only	4.50	1.48	1.49	0.99
P62995 2xPhospho [S264;S266]	TRA2B S264;S266	CAF_only	-0.05	0.02	1.48	1.37
Q13595 2xPhospho [S260;S262]	TRA2A S260;S262	CAF_only	-0.05	0.02	1.48	1.37
Q8WXE0 1xPhospho [S858]	CASKIN2 S858	CAF_only	0.60	0.27	1.48	1.42
Q8WZA1 1xPhospho [S66]	POMGNT1 S66	CAF_only	1.86	0.91	1.48	1.41

Q96CP6 2xPhospho [T12;S16]	GRAMD1A T12;S16	CAF_only	1.38	0.19	1.48	1.75
P10451 2xPhospho [S303;S310]	SPP1 S303;S310	CAF_only	0.35	0.48	1.48	1.42
Q86U86 1xPhospho [S948]	PBRM1 S948	CAF_only	-0.87	0.89	1.48	1.90
Q9UGY1 1xPhospho [S134]	NOL12 S134	Cancer_only	1.27	1.58	1.47	0.75
P40222 1xPhospho [S515]	TXLNA S515	Cancer_only	2.10	2.45	1.47	1.14
Q9NXG2 [78-101]	THUMPD1 78-101	CAF_only	0.83	0.28	1.46	1.74
O95232 2xPhospho [S425;S431]	LUC7L3 S425;S431	Cancer_only	1.16	1.43	1.46	0.79
Q8IUC4 1xPhospho [S616]	RHPN2 S616	Cancer_only	3.05	1.86	1.46	0.91
P51003 1xPhospho [S537]	PAPOLA S537	CAF_only	2.31	0.83	1.45	1.33
Q86TI0 1xPhospho [S263]	TBC1D1 S263	Cancer_only	1.05	1.62	1.45	0.18
Q9NZJ0 1xPhospho [S490]	DTL S490	Cancer_only	2.43	1.33	1.45	0.72
O15055 1xPhospho [S977]	PER2 S977	CAF_only	0.76	0.35	1.45	1.33
Q99590 2xPhospho [S830;S832]	SCAF11 S830;S832	CAF_only	0.37	0.93	1.44	1.68
O75113 1xPhospho [S256]	N4BP1 S256	Cancer_only	2.16	1.70	1.44	0.36
Q96NY9 1xPhospho [S95]	MUS81 S95	CAF_only	0.40	0.18	1.44	1.52
P42696 1xPhospho [S14]	RBM34 S14	CAF_only	-0.19	0.95	1.44	1.32
Q969E2 1xPhospho [T194]	SCAMP4 T194	CAF_only	1.31	0.26	1.44	1.69
P10073 1xPhospho [S9]	ZSCAN22 S9	CAF_only	0.98	0.67	1.44	1.34
Q66K74 2xPhospho [S631;S632]	MAP1S S631;S632	CAF_only	1.83	0.91	1.43	1.52
P35611 1xPhospho [S436]	ADD1 S436	CAF_only	-0.35	1.28	1.43	1.87
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S850]	MAP1A S850	CAF_only	1.38	0.80	1.42	1.33
P78559 1xPhospho [S612]	MAP1A S612	CAF_only	1.38	0.80	1.42	1.33
P22314 1xPhospho [S24]	UBA1 S24	Cancer_and_CAF	3.45	1.41	1.42	1.79
Q7Z6E9 1xPhospho [S516]	RBBP6 S516	Cancer_only	-1.04	1.74	1.42	0.82
Q8WX92 1xPhospho [S557]	NELFB S557	Cancer_only	1.09	1.60	1.41	0.51
Q14978 [80-103]	NOLC1 80-103	Cancer_only	-3.50	1.52	1.40	1.11

Q9BQE9 2xPhospho [S111;S122]	BCL7B S111;S122	Cancer_only	3.59	1.47	1.40	0.52
Q8WWI1 1xPhospho [S706]	LMO7 S706	CAF_only	-0.66	0.34	1.40	1.59
P55072 1xPhospho [S702]	VCP S702	CAF_only	1.14	1.09	1.40	1.42
O75475 2xPhospho [S105;S106]	PSIP1 S105;S106	CAF_only	1.90	0.89	1.40	1.38
P49006 2xPhospho [S116;S119]	MARCKSL1 S116;S119	CAF_only	0.22	0.05	1.40	1.96
Q6KC79 [572-601]	NIPBL 572-601	CAF_only	0.83	0.44	1.39	1.55
Q96S94 1xPhospho [S338]	CCNL2 S338	Cancer_only	1.50	1.58	1.39	0.50
P13521 1xPhospho [S532]	SCG2 S532	CAF_only	1.78	0.59	1.39	1.38
ENST00000382031_NCI-H1792_Mis:P2036S 2xPhospho [S2328;S2330]	MAP1A S2328;S2330	CAF_only	0.67	0.18	1.38	1.34
P78559 2xPhospho [S2090;S2092]	MAP1A S2090;S2092	CAF_only	0.67	0.18	1.38	1.34
Q8WX93 1xPhospho [S984]	PALLD S984	Cancer_only	2.31	1.83	1.38	1.11
Q8TE76 1xPhospho [T621]	MORC4 T621	CAF_only	1.29	0.94	1.38	1.57
Q9BRS2 2xPhospho [S21;S22]	RIOK1 S21;S22	CAF_only	1.21	0.66	1.38	1.67
O00571 [82-93]	DDX3X 82-93	CAF_only	1.13	0.31	1.38	1.43
P07197 1xPhospho [S559]	NEFM S559	CAF_only	1.48	0.60	1.38	2.14
P35251 1xPhospho [S29]	RFC1 S29	CAF_only	1.30	1.25	1.37	1.31
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S2056]	MAP1A S2056	Cancer_and_CAF	1.69	1.75	1.37	2.07
P78559 1xPhospho [S1818]	MAP1A S1818	Cancer_and_CAF	1.69	1.75	1.37	2.07
Q2M2I8 1xPhospho [S652]	AAK1 S652	CAF_only	1.58	1.06	1.37	1.57
Q9NZJ0 1xPhospho [T516]	DTL T516	CAF_only	0.93	3.23	1.35	1.40
O75717 1xPhospho [S1041]	WDHD1 S1041	CAF_only	0.94	0.87	1.35	1.82
Q14157 1xPhospho [S609]	UBAP2L S609	Cancer_and_CAF	2.08	1.70	1.35	1.31
Q12802 1xPhospho [T1149]	AKAP13 T1149	CAF_only	0.70	0.06	1.35	1.42
Q9Y4X5 1xPhospho [S517]	ARIH1 S517	Cancer_only	2.02	1.42	1.34	1.18

Q92667 1xPhospho [S151]	AKAP1 S151	CAF_only	0.42	1.13	1.34	1.34
Q9NSY1 1xPhospho [S14]	BMP2K S14	CAF_only	0.80	0.39	1.34	1.40
Q14008 [1800-1815]	CKAP5 1800-1815	Cancer_and_CAF	1.62	1.64	1.34	1.89
Q15811 1xPhospho [S203]	ITSN1 S203	CAF_only	0.09	0.41	1.34	1.37
O95453 1xPhospho [S628]	PARN S628	CAF_only	0.30	0.48	1.34	2.09
Q12841 1xPhospho [S165]	FSTL1 S165	CAF_only	-0.28	0.88	1.33	1.64
O00712 1xPhospho [S295]	NFIB S295	CAF_only	0.09	0.03	1.33	1.57
P25054 2xPhospho [S1038;S1042]	APC S1038;S1042	CAF_only	-0.29	0.14	1.33	2.72
Q9BW71 1xPhospho [S227]	HIRIP3 S227	Cancer_only	1.32	1.79	1.33	0.54
Q7RTP6 1xPhospho [T797]	MICAL3 T797	CAF_only	-0.35	0.40	1.33	3.04
Q9NQW6 1xPhospho [S658]	ANLN S658	Cancer_only	1.21	1.86	1.32	0.40
Q96N67 1xPhospho [S1438]	DOCK7 S1438	Cancer_and_CAF	1.62	4.02	1.32	1.41
Q9NXH9 1xPhospho [S120]	TRMT1 S120	CAF_only	0.67	0.52	1.32	2.01
Q15154 2xPhospho [S116;S119]	PCM1 S116;S119	Cancer_and_CAF	1.19	1.46	1.32	1.81
Q9P244 1xPhospho [S718]	LRFN1 S718	CAF_only	0.93	1.50	1.32	2.35
A1L390 2xPhospho [S643;S647]	PLEKHG3 S643;S647	CAF_only	0.31	0.26	1.32	2.76
Q9Y2W1 1xPhospho [S535]	THRAP3 S535	Cancer_only	1.08	2.18	1.32	0.33
Q9Y4G8 1xPhospho [T602]	RAPGEF2 T602	Cancer_only	3.31	2.09	1.31	1.04
Q7Z4V5 1xPhospho [S652]	HDGFRP2 S652	Cancer_only	1.50	2.76	1.30	1.00
Q96MH2 1xPhospho [S53]	HEXIM2 S53	Cancer_only	1.39	1.53	1.30	0.65
P54132 1xPhospho [T171]	BLM T171	CAF_only	0.11	0.16	1.30	1.42
P43243 1xPhospho [S533]	MATR3 S533	CAF_only	0.98	0.35	1.30	2.28
Q9P0U3 1xPhospho [S416]	SENP1 S416	Cancer_only	1.09	1.64	1.30	0.65
Q9ULL5 1xPhospho [T738]	PRR12 T738	CAF_only	0.13	0.13	1.30	1.36
Q9Y2K7 2xPhospho [T713;S718]	KDM2A T713;S718	CAF_only	0.34	0.71	1.30	2.60
P22314 1xPhospho [S46]	UBA1 S46	Cancer_only	2.43	1.76	1.29	0.79

Q8N3S3 1xPhospho [S279]	PHTF2 S279	CAF_only	-0.02	0.02	1.29	1.33
Q9HD67 1xPhospho [T599]	MYO10 T599	CAF_only	0.92	0.23	1.29	1.78
Q6PKG0 2xPhospho [T68;S90]	LARP1 T68;S90	Cancer_only	3.27	1.75	1.28	0.54
Q9Y485 1xPhospho [S1970]	DMXL1 S1970	Cancer_only	1.21	2.48	1.28	0.49
P49761 1xPhospho [S157]	CLK3 S157	Cancer_only	1.42	2.47	1.28	1.08
P10451 2xPhospho [S254;S263]	SPP1 S254;S263	Cancer_only	1.67	1.54	1.28	0.57
A0AVK6 2xPhospho [S413;S417]	E2F8 S413;S417	Cancer_and_CAF	1.23	2.09	1.28	1.51
Q9H2Y7 1xPhospho [S861]	ZNF106 S861	CAF_only	0.75	0.36	1.28	1.46
P33991 1xPhospho [S131]	MCM4 S131	Cancer_only	1.49	1.81	1.28	0.89
Q09666 1xPhospho [T590]	AHNAK T590	CAF_only	0.35	0.53	1.28	1.51
Q7Z5L9 1xPhospho [S240]	IRF2BP2 S240	CAF_only	1.15	0.94	1.28	2.62
Q9Y6R1 2xPhospho [S65;S68]	SLC4A4 S65;S68	Cancer_only	1.19	1.32	1.28	0.66
Q5TB80 1xPhospho [T176]	CEP162 T176	Cancer_and_CAF	1.65	1.99	1.28	1.40
Q12986 1xPhospho [S150]	NFX1 S150	Cancer_and_CAF	1.78	2.48	1.27	1.46
Q8NC51 1xPhospho [S25]	SERBP1 S25	CAF_only	2.54	0.82	1.27	1.39
P38432 1xPhospho [S271]	COIL S271	Cancer_only	-1.33	1.54	1.27	0.34
Q14669 1xPhospho [S1376]	TRIP12 S1376	CAF_only	1.13	0.78	1.27	1.39
Q5SYE7 1xPhospho [S1472]	NHSL1 S1472	Cancer_and_CAF	1.48	1.63	1.27	2.10
P47974 1xPhospho [S125]	ZFP36L2 S125	Cancer_and_CAF	3.53	1.96	1.27	2.39
Q96EI5 1xPhospho [S102]	TCEAL4 S102	CAF_only	1.95	1.04	1.27	1.85
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S905]	MAP1A S905	Cancer_only	1.42	1.85	1.26	1.21
P78559 1xPhospho [S667]	MAP1A S667	Cancer_only	1.42	1.85	1.26	1.21
P24864 2xPhospho [S387;T395]	CCNE1 S387;T395	Cancer_only	1.20	1.69	1.26	0.40
Q99728 1xPhospho [S186]	BARD1 S186	CAF_only	0.47	0.56	1.26	1.49
Q02078 1xPhospho [S255]	MEF2A S255	CAF_only	0.64	1.74	1.26	2.07
P49736 1xPhospho [S53]	MCM2 S53	CAF_only	1.03	0.49	1.25	2.46

Q5VT06 1xPhospho [S1807]	CEP350 S1807	CAF_only	1.77	1.19	1.25	1.99
P52948 2xPhospho [S618;S623]	NUP98 S618;S623	CAF_only	0.05	0.48	1.25	1.47
P46821 1xPhospho [S1265]	MAP1B S1265	Cancer_only	2.15	3.46	1.25	0.71
Q7L576 [579-594]	CYFIP1 579-594	CAF_only	-0.27	0.32	1.24	1.66
Q6VN20 1xPhospho [S369]	RANBP10 S369	Cancer_only	2.22	1.48	1.24	0.92
P28290 2xPhospho [S1060;S1063]	SSFA2 S1060;S1063	CAF_only	1.28	0.13	1.24	1.46
Q8ND76 [18-34]	CCNY 18-34	CAF_only	0.20	0.13	1.24	2.32
O43896 1xPhospho [S817]	KIF1C S817	CAF_only	1.70	0.95	1.24	1.51
Q9UKM9 [277-306]	RALY 277-306	CAF_only	0.28	0.10	1.23	1.62
Q13439 2xPhospho [S113;S/T]	GOLGA4 S113;S/T	Cancer_only	1.30	1.95	1.23	1.18
Q8TEW0 1xPhospho [S692]	PARD3 S692	CAF_only	0.57	0.57	1.22	3.22
Q9UBI1 1xPhospho [T68]	COMMD3 T68	CAF_only	0.55	0.34	1.22	1.45
Q9BU76 2xPhospho [S231;S235]	MMTAG2 S231;S235	CAF_only	0.62	0.67	1.22	1.71
Q9Y5J1 1xPhospho [S121]	UTP18 S121	CAF_only	-0.14	0.03	1.22	1.71
O95453 [568-605]	PARN 568-605	CAF_only	0.43	0.14	1.22	1.44
P05455 1xPhospho [S366]	SSB S366	Cancer_only	1.44	1.42	1.22	0.52
Q9NTJ3 2xPhospho [S22;S]	SMC4 S22;S	CAF_only	1.24	0.53	1.22	1.36
Q9UQB8 1xPhospho [S366]	BAIAP2 S366	Cancer_only	2.56	2.10	1.22	0.70
Q09019 1xPhospho [S397]	DMWD S397	CAF_only	-0.31	0.09	1.22	1.60
O15061 1xPhospho [S1107]	SYNM S1107	CAF_only	-0.14	0.21	1.21	1.85
P30305 [222-241]	CDC25B 222-241	CAF_only	1.55	0.92	1.21	1.41
Q8N4S9 [40-79]	MARVELD2 40-79	Cancer_only	-2.16	1.35	1.21	0.16
Q9NPI6 1xPhospho [S525]	DCP1A S525	Cancer_only	1.35	1.35	1.20	0.56
Q14247 1xPhospho [S11]	CTTN S11	Cancer_and_CAF	-1.14	1.34	1.19	2.04
Q8TEV9 1xPhospho [S498]	SMCR8 S498	CAF_only	-0.66	0.39	1.19	1.70
Q2KHR2 1xPhospho [S202]	RFX7 S202	CAF_only	-0.03	0.02	1.19	1.62

Q6T4R5 1xPhospho [S1598]	NHS S1598	CAF_only	1.23	0.36	1.18	1.38
Q9UQ35 1xPhospho [S2398]	SRRM2 S2398	CAF_only	0.72	0.22	1.18	1.42
Q9H2Y7 2xPhospho [S1025;S1026]	ZNF106 S1025;S1026	CAF_only	0.71	0.49	1.18	1.45
O60673 2xPhospho [S1119;S1124]	REV3L S1119;S1124	CAF_only	0.73	0.39	1.18	1.50
P41182 1xPhospho [S343]	BCL6 S343	Cancer_only	1.10	1.38	1.18	0.58
Q92734 [119-147]	TFG 119-147	Cancer_only	1.54	1.47	1.18	1.17
P47756 1xPhospho [T186]	CAPZB T186	Cancer_only	1.74	1.72	1.18	1.06
P48058 2xPhospho [Y287;S/T]	GRIA4 Y287;S/T	CAF_only	0.47	0.53	1.18	1.37
Q02952 1xPhospho [S388]	AKAP12 S388	CAF_only	2.95	1.02	1.17	1.72
Q9BV36 1xPhospho [S266]	MLPH S266	CAF_only	0.69	0.75	1.17	1.33
Q9BQQ3 1xPhospho [T216]	GORASP1 T216	CAF_only	-0.14	0.28	1.17	2.06
Q86YC2 1xPhospho [T809]	PALB2 T809	CAF_only	0.14	0.14	1.17	1.32
Q3MII6 1xPhospho [S506]	TBC1D25 S506	Cancer_only	2.31	1.56	1.17	0.62
P06400 1xPhospho [T821]	RB1 T821	Cancer_only	4.47	1.64	1.17	0.59
Q9UBU7 1xPhospho [T553]	DBF4 T553	Cancer_only	1.60	1.38	1.17	1.26
Q99081 1xPhospho [T313]	TCF12 T313	Cancer_and_CAF	1.24	1.42	1.17	1.39
Q8IZD2 1xPhospho [S623]	KMT2E S623	CAF_only	0.69	0.63	1.16	2.28
P49023 1xPhospho [S250]	PXN S250	CAF_only	0.87	0.47	1.16	2.03
Q5JRA6 [1716-1742]	MIA3 1716-1742	CAF_only	-0.95	0.60	1.16	1.56
O00592 1xPhospho [S529]	PODXL S529	CAF_only	-1.82	0.84	1.16	1.50
Q9UHD8 1xPhospho [S82]	SEPTIN9 S82	CAF_only	0.44	0.09	1.16	1.59
P55317 1xPhospho [S331]	FOXA1 S331	CAF_only	0.47	0.47	1.16	2.48
Q15468 1xPhospho [S1135]	STIL S1135	Cancer_only	1.90	2.88	1.16	0.44
Q8NFC6 2xPhospho [S2973;S2986]	BOD1L1 S2973;S2986	CAF_only	0.37	0.45	1.15	1.40
Q9UHB7 2xPhospho [S703;S706]	AFF4 S703;S706	CAF_only	0.63	0.30	1.15	1.48
Q13459 1xPhospho [S1290]	MYO9B S1290	Cancer_only	2.05	1.60	1.15	0.63

Q66K74 2xPhospho [S472;S475]	MAP1S S472;S475	Cancer_only	3.43	3.09	1.15	0.80
Q9NYF8 2xPhospho [S285;S290]	BCLAF1 S285;S290	CAF_only	0.46	0.26	1.15	1.49
A6H8Y1 1xPhospho [S1524]	BDP1 S1524	CAF_only	-0.94	1.07	1.15	1.48
Q86VM9 2xPhospho [S836;S842]	ZC3H18 S836;S842	CAF_only	0.42	0.44	1.14	1.97
Q9NTI5 1xPhospho [S1182]	PDS5B S1182	Cancer_only	1.54	1.67	1.14	0.82
P58335 1xPhospho [S379]	ANTXR2 S379	Cancer_only	1.43	1.88	1.14	1.22
Q9H6X2 1xPhospho [S381]	ANTXR1 S381	Cancer_only	1.43	1.88	1.14	1.22
Q96JM3 2xPhospho [S626;S627]	CHAMP1 S626;S627	CAF_only	0.47	1.09	1.14	1.90
Q86VM9 1xPhospho [S893]	ZC3H18 S893	CAF_only	0.29	1.23	1.14	1.41
Q96MH2 1xPhospho [S29]	HEXIM2 S29	Cancer_only	2.93	1.65	1.14	0.54
P28715 2xPhospho [S562;S563]	ERCC5 S562;S563	Cancer_only	1.10	1.49	1.13	1.00
A8CG34 2xPhospho [S422;T424]	POM121C S422;T424	CAF_only	0.41	0.20	1.13	1.54
Q96HA1 2xPhospho [S445;T447]	POM121 S445;T447	CAF_only	0.41	0.20	1.13	1.54
Q13428 1xPhospho [S1350]	TCOF1 S1350	CAF_only	-0.51	0.24	1.13	1.59
P29317 1xPhospho [S570]	EPHA2 S570	CAF_only	-1.09	0.35	1.13	2.86
O75167 1xPhospho [S428]	PHACTR2 S428	CAF_only	0.70	0.51	1.13	1.45
O43166 1xPhospho [S1366]	SIPA1L1 S1366	CAF_only	-0.50	0.56	1.13	2.25
P40227 [200-208]	CCT6A 200-208	CAF_only	0.91	1.19	1.13	1.47
Q15149 1xPhospho [S4642]	PLEC S4642	CAF_only	-0.85	0.98	1.12	1.35
Q9HC77 1xPhospho [S469]	CENPJ S469	Cancer_only	1.20	1.50	1.12	0.61
Q14680 1xPhospho [S505]	MELK S505	Cancer_only	1.74	1.57	1.12	0.57
Q15911 1xPhospho [S2896]	ZFHX3 S2896	CAF_only	1.45	0.71	1.12	1.60
Q9NQU5 1xPhospho [S616]	PAK6 S616	CAF_only	-0.62	0.32	1.12	2.73
Q8WXA9 2xPhospho [S213;S215]	SREK1 S213;S215	CAF_only	-0.33	0.07	1.12	1.72
Q04726 1xPhospho [T328]	TLE3 T328	Cancer_and_CAF	1.33	1.64	1.12	2.14
Q14687 1xPhospho [S909]	GSE1 S909	CAF_only	1.07	0.88	1.12	1.49

Q9UNL4 1xPhospho [S150]	ING4 S150	Cancer_only	1.80	1.94	1.12	0.87
O43303 1xPhospho [S372]	CCP110 S372	Cancer_and_CAF	1.12	2.42	1.12	1.83
Q02952 2xPhospho [S627;S629]	AKAP12 S627;S629	CAF_only	1.79	0.94	1.11	2.16
Q92945 1xPhospho [T100]	KHSRP T100	CAF_only	1.28	1.20	1.11	1.44
Q9NQV6 1xPhospho [S424]	PRDM10 S424	CAF_only	1.32	0.85	1.11	1.35
Q86YD1 1xPhospho [S53]	PTOV1 S53	CAF_only	0.74	0.18	1.11	1.64
Q8NCF5 1xPhospho [S201]	NFATC2IP S201	CAF_only	0.86	1.17	1.11	1.86
P49589 1xPhospho [S307]	CARS S307	CAF_only	0.66	0.20	1.11	1.73
Q3MIT2 1xPhospho [S84]	PUS10 S84	Cancer_only	1.34	1.75	1.10	0.73
Q9Y608 1xPhospho [S18]	LRRFIP2 S18	CAF_only	0.33	0.24	1.10	1.34
Q9NQL2 [86-99]	RRAGD 86-99	Cancer_only	1.17	2.78	1.10	0.99
Q96R06 1xPhospho [S135]	SPAG5 S135	CAF_only	0.51	1.33	1.10	2.15
Q7Z2Z1 1xPhospho [S838]	TICRR S838	CAF_only	0.84	0.59	1.10	1.93
O15061 1xPhospho [T598]	SYNM T598	CAF_only	0.10	0.22	1.10	1.84
Q9P2F8 1xPhospho [S286]	SIPA1L2 S286	CAF_only	0.26	0.32	1.10	2.40
Q07157 1xPhospho [T868]	TJP1 T868	CAF_only	0.50	0.29	1.10	1.32
P27816 1xPhospho [S1073]	MAP4 S1073	Cancer_only	1.79	1.33	1.09	0.37
P18887 2xPhospho [T453;S/T]	XRCC1 T453;S/T	CAF_only	1.06	1.06	1.09	1.84
O14544 1xPhospho [S311]	SOCS6 S311	CAF_only	1.28	1.29	1.09	1.31
Q9Y485 1xPhospho [S1254]	DMXL1 S1254	CAF_only	0.95	0.24	1.09	1.38
Q09666 1xPhospho [S5298]	AHNAK S5298	Cancer_only	1.16	1.44	1.09	0.44
O00512 1xPhospho [S687]	BCL9 S687	CAF_only	0.28	1.11	1.08	1.32
Q99442 1xPhospho [S117]	SEC62 S117	Cancer_and_CAF	1.27	1.60	1.08	2.16
P19793 [246-274]	RXRA 246-274	CAF_only	0.42	0.12	1.08	1.40
Q9UNS1 1xPhospho [S1121]	TIMELESS S1121	Cancer_only	1.65	1.91	1.08	0.69
P35240 1xPhospho [S518]	NF2 S518	CAF_only	0.66	0.50	1.08	1.33

P26651 1xPhospho [S93]	ZFP36 S93	Cancer_only	1.02	2.06	1.08	0.62
Q6P1R3 1xPhospho [S48]	MSANTD2 S48	CAF_only	0.50	0.26	1.08	1.36
P35612 1xPhospho [S613]	ADD2 S613	Cancer_and_CAF	2.47	1.60	1.08	1.63
Q17R98 2xPhospho [T959;S/T]	ZNF827 T959;S/T	CAF_only	0.34	0.59	1.08	1.70
Q96NE9 1xPhospho [S525]	FRMD6 S525	Cancer_only	1.88	1.49	1.08	0.59
Q15788 1xPhospho [S698]	NCOA1 S698	Cancer_only	1.31	1.59	1.08	0.51
Q7Z417 1xPhospho [S112]	NUFIP2 S112	CAF_only	1.72	1.02	1.08	2.15
Q8IUW5 1xPhospho [T261]	RELL1 T261	CAF_only	0.08	0.03	1.07	3.01
Q13796 1xPhospho [S1173]	SHROOM2 S1173	Cancer_only	1.31	1.47	1.07	0.77
Q8TAT6 1xPhospho [S11]	NPLOC4 S11	CAF_only	-0.60	0.19	1.07	1.46
Q9Y2X9 1xPhospho [S800]	ZNF281 S800	Cancer_only	1.86	1.79	1.07	0.50
Q765P7 1xPhospho [S300]	MTSS1L S300	CAF_only	-0.14	0.14	1.07	1.80
Q08117 1xPhospho [S196]	AES S196	Cancer_only	1.04	2.31	1.07	0.80
P52701 1xPhospho [S137]	MSH6 S137	CAF_only	0.62	0.25	1.07	1.38
Q8N1F8 1xPhospho [S470]	STK11IP S470	CAF_only	-0.26	0.49	1.06	1.48
P43243 1xPhospho [T150]	MATR3 T150	Cancer_only	-1.31	1.46	1.06	0.62
Q6P1R4 [445-473]	DUS1L 445-473	Cancer_only	1.01	1.50	1.06	0.54
P10074 2xPhospho [S171;S179]	ZBTB48 S171;S179	CAF_only	0.32	0.78	1.05	1.38
Q6UB99 1xPhospho [S834]	ANKRD11 S834	Cancer_only	1.27	2.16	1.05	0.45
Q14669 [1419-1429]	TRIP12 1419-1429	CAF_only	-1.97	0.56	1.05	2.23
Q8NG31 1xPhospho [S956]	CASC5 S956	CAF_only	0.06	0.03	1.05	1.32
Q8TED9 1xPhospho [S603]	AFAP1L1 S603	CAF_only	-1.66	0.89	1.05	1.38
P46013 1xPhospho [S859]	MKI67 S859	CAF_only	-0.41	1.60	1.05	1.38
Q5VT52 1xPhospho [S928]	RPRD2 S928	CAF_only	0.72	1.91	1.05	1.67
Q9BRJ6 1xPhospho [S175]	C7orf50 S175	CAF_only	1.02	1.03	1.05	1.40
Q14160 2xPhospho [S1541;S1566]	SCRIB S1541;S1566	CAF_only	0.36	0.36	1.05	1.32

Q9UNP9 [89-103]	PPIE 89-103	CAF_only	-0.36	0.45	1.04	1.57
Q96B23 1xPhospho [S67]	C18orf25 S67	CAF_only	0.98	1.09	1.04	1.47
Q7Z591 1xPhospho [S52]	AKNA S52	Cancer_only	2.18	2.06	1.04	0.58
Q8IWT3 1xPhospho [S2436]	CUL9 S2436	Cancer_only	1.81	1.49	1.04	1.20
Q9UKS7 1xPhospho [S56]	IKZF2 S56	Cancer_only	1.12	1.71	1.04	0.49
Q5XUX1 1xPhospho [S18]	FBXW9 S18	Cancer_only	2.53	1.67	1.04	0.55
O43719 2xPhospho [S597;S600]	HTATSF1 S597;S600	Cancer_only	1.64	2.92	1.04	0.74
Q659C4 1xPhospho [S60]	LARP1B S60	CAF_only	0.90	0.88	1.04	2.77
P28698 1xPhospho [S27]	MZF1 S27	CAF_only	0.31	0.11	1.04	1.49
Q12802 [2756-2772]	AKAP13 2756-2772	CAF_only	-0.01	0.02	1.04	1.36
Q8WYH8 1xPhospho [S118]	ING5 S118	CAF_only	0.19	0.28	1.04	1.79
Q9UQ35 2xPhospho [S420;S424]	SRRM2 S420;S424	CAF_only	0.42	0.69	1.03	1.32
Q9HD20 1xPhospho [S935]	ATP13A1 S935	Cancer_only	-1.20	1.83	1.03	0.93
Q96K76 1xPhospho [S944]	USP47 S944	Cancer_and_CAF	1.50	1.75	1.03	1.92
Q12905 1xPhospho [S218]	ILF2 S218	CAF_only	-0.04	0.06	1.03	1.57
Q8N4S0 2xPhospho [S219;S220]	CCDC82 S219;S220	CAF_only	1.28	0.97	1.03	1.59
Q92547 1xPhospho [S1504]	TOPBP1 S1504	Cancer_only	1.35	2.92	1.03	0.44
Q9H4L4 1xPhospho [S169]	SENP3 S169	CAF_only	-0.03	0.02	1.03	1.50
Q9BX63 1xPhospho [T113]	BRIP1 T113	Cancer_only	1.50	1.61	1.03	0.67
Q9UDY2 2xPhospho [S170;S174]	TJP2 S170;S174	Cancer_only	1.31	1.59	1.03	0.54
P35610 1xPhospho [S86]	SOAT1 S86	CAF_only	0.80	0.11	1.03	1.89
O75764 1xPhospho [S115]	TCEA3 S115	CAF_only	1.44	0.47	1.02	1.47
P10244 1xPhospho [S282]	MYBL2 S282	Cancer_and_CAF	1.57	1.62	1.02	1.58
P55317 1xPhospho [S307]	FOXA1 S307	CAF_only	0.25	0.57	1.02	1.82
B3KU38 1xPhospho [S193]	IQCJ-SCHIP1 S193	Cancer_and_CAF	2.07	1.71	1.02	1.42
Q14126 1xPhospho [S680]	DSG2 S680	CAF_only	-0.38	0.24	1.02	1.53

Q9NSI2 1xPhospho [S161]	FAM207A S161	CAF_only	-0.91	0.37	1.02	1.52
Q16512 1xPhospho [S573]	PKN1 S573	CAF_only	0.66	0.56	1.01	1.42
A2RUB6 1xPhospho [S947]	CCDC66 S947	CAF_only	0.75	0.32	1.01	1.57
Q5T481 1xPhospho [S1060]	RBM20 S1060	CAF_only	0.46	0.45	1.01	1.41
Q16576 1xPhospho [S99]	RBBP7 S99	CAF_only	0.05	0.04	1.01	1.97
O60307 [707-725]	MAST3 707-725	CAF_only	-0.23	0.43	1.01	2.78
Q4KMQ1 1xPhospho [S362]	TPRN S362	CAF_only	0.28	0.11	1.01	1.48
Q4G0J3 2xPhospho [S337;T338]	LARP7 S337;T338	CAF_only	0.75	0.87	1.01	1.30
P49792 1xPhospho [S1160]	RANBP2 S1160	CAF_only	-0.10	0.15	1.00	1.94
Q6IN85 1xPhospho [S780]	SMEK1 S780	Cancer_only	1.83	1.59	1.00	1.94
Q6ZV73 1xPhospho [S554]	FGD6 S554	Cancer_only	4.12	1.32	1.00	0.28
Q9BWU0 1xPhospho [S466]	SLC4A1AP S466	Cancer_only	1.37	1.83	0.99	0.91
Q9BTE3 [153-163]	MCMBP 153-163	Cancer_only	1.04	1.57	0.99	1.37
Q92538 1xPhospho [S662]	GBF1 S662	Cancer_only	1.96	1.40	0.99	0.94
P15259 1xPhospho [Y92]	PGAM2 Y92	Cancer_only	1.28	1.45	0.99	0.88
P18669 1xPhospho [Y92]	PGAM1 Y92	Cancer_only	1.28	1.45	0.99	0.88
Q00341 2xPhospho [S31;S35]	HDLBP S31;S35	Cancer_only	1.25	2.16	0.99	0.76
Q52LA3 1xPhospho [S53]	LIN52 S53	Cancer_only	1.31	1.38	0.98	0.53
Q13242 1xPhospho [S189]	SRSF9 S189	Cancer_only	1.19	1.36	0.98	1.11
Q8NEZ4 1xPhospho [S1387]	KMT2C S1387	Cancer_only	1.46	1.33	0.97	1.10
Q8N766 2xPhospho [S668;Y672]	EMC1 S668;Y672	Cancer_only	1.72	1.68	0.95	0.60
Q9P1Y6 2xPhospho [S1114;S1116]	PHRF1 S1114;S1116	Cancer_only	-1.78	1.36	0.95	1.01
Q9H3M7 1xPhospho [T349]	TXNIP T349	Cancer_only	-2.33	2.47	0.94	0.33
Q96D09 [510-529]	GPRASP2 510-529	Cancer_only	1.30	1.60	0.94	0.32
O00139 1xPhospho [T78]	KIF2A T78	Cancer_only	2.08	1.85	0.93	0.39
Q92614 1xPhospho [S1640]	MYO18A S1640	Cancer_only	1.16	2.59	0.93	0.69

Q9BPX3 2xPhospho [S973;S975]	NCAPG S973;S975	Cancer_only	1.32	2.07	0.93	0.35
Q99700 1xPhospho [T741]	ATXN2 T741	Cancer_only	1.23	2.06	0.93	0.85
Q03188 2xPhospho [S610;S613]	CENPC S610;S613	Cancer_only	-1.16	1.37	0.92	1.08
O75554 1xPhospho [S262]	WBP4 S262	Cancer_only	1.29	2.02	0.92	0.50
Q9C0C2 1xPhospho [S762]	TNKS1BP1 S762	Cancer_only	1.15	1.42	0.92	0.68
Q9ULU4 1xPhospho [S406]	ZMYND8 S406	Cancer_only	-1.09	1.56	0.91	0.46
Q9NQG5 [149-182]	RPRD1B 149-182	Cancer_only	1.21	1.45	0.90	1.00
P41212 1xPhospho [T18]	ETV6 T18	Cancer_only	1.37	1.40	0.90	0.44
Q96Q42 [463-480]	ALS2 463-480	Cancer_only	1.91	1.80	0.90	0.32
Q9BY12 1xPhospho [S298]	SCAPER S298	Cancer_only	2.06	1.31	0.89	0.52
P21675 1xPhospho [S1826]	TAF1 S1826	Cancer_only	1.29	1.87	0.89	2.12
P09104 1xPhospho [S263]	ENO2 S263	Cancer_only	2.52	1.95	0.89	1.49
Q86TB9 2xPhospho [S179;S184]	PATL1 S179;S184	Cancer_only	2.61	3.49	0.89	0.58
O14646 1xPhospho [S1677]	CHD1 S1677	Cancer_only	-3.19	1.41	0.88	0.30
O95197 1xPhospho [S650]	RTN3 S650	Cancer_only	-1.23	2.17	0.88	0.86
Q05209 2xPhospho [T587;S588]	PTPN12 T587;S588	Cancer_only	1.38	2.58	0.87	1.03
Q9NQG7 1xPhospho [S355]	HPS4 S355	Cancer_only	1.49	1.79	0.87	2.35
Q49MG5 1xPhospho [S79]	MAP9 S79	Cancer_only	1.75	2.04	0.87	1.27
Q6PID6 1xPhospho [S197]	TTC33 S197	Cancer_only	1.47	1.41	0.87	0.90
Q8TAD8 [366-396]	SNIP1 366-396	Cancer_only	1.00	3.07	0.87	0.54
P10451 1xPhospho [S234]	SPP1 S234	Cancer_only	1.45	1.30	0.87	0.34
Q9Y6X4 2xPhospho [S635;S636]	FAM169A S635;S636	Cancer_only	1.35	1.36	0.87	1.44
Q9NQ92 1xPhospho [S66]	COPRS S66	Cancer_only	2.36	2.04	0.86	0.39
Q86Z02 1xPhospho [S1200]	HIPK1 S1200	Cancer_only	1.71	1.51	0.86	0.80
Q9Y2D5 2xPhospho [S152;S/T]	AKAP2 S152;S/T	Cancer_only	-1.15	1.34	0.85	0.95
Q9H1B7 1xPhospho [S659]	IRF2BPL S659	Cancer_only	1.42	1.65	0.85	1.04

P18858 2xPhospho [S911;S913]	LIG1 S911;S913	Cancer_only	1.60	1.43	0.84	1.08
Q9HC44 1xPhospho [S49]	GPBP1L1 S49	Cancer_only	2.14	1.71	0.84	0.40
Q70CQ2 1xPhospho [S2488]	USP34 S2488	Cancer_only	1.50	2.52	0.83	0.53
Q9H1E3 1xPhospho [S58]	NUCKS1 S58	Cancer_only	1.20	1.63	0.83	1.15
Q15672 1xPhospho [S99]	TWIST1 S99	Cancer_only	1.00	1.50	0.83	0.88
Q9BW71 2xPhospho [S159;S160]	HIRIP3 S159;S160	Cancer_only	2.03	1.74	0.83	0.33
Q9Y2X7 1xPhospho [S592]	GIT1 S592	Cancer_only	1.40	1.38	0.83	0.22
Q14004 1xPhospho [T1058]	CDK13 T1058	Cancer_only	-1.31	1.31	0.82	0.68
Q96I15 1xPhospho [S129]	SCLY S129	Cancer_only	2.40	1.48	0.82	0.39
Q9UNE7 1xPhospho [S19]	STUB1 S19	Cancer_only	1.17	1.80	0.81	1.08
Q8TEK3 1xPhospho [S374]	DOT1L S374	Cancer_only	1.15	1.39	0.81	0.53
Q9P2Q2 1xPhospho [S727]	FRMD4A S727	Cancer_only	1.17	1.38	0.81	0.67
P14859 1xPhospho [S448]	POU2F1 S448	Cancer_only	1.51	1.55	0.80	1.85
Q9NYF8 2xPhospho [S119;S]	BCLAF1 S119;S	Cancer_only	1.22	1.37	0.80	0.32
Q76I76 1xPhospho [S1259]	SSH2 S1259	Cancer_only	2.25	1.33	0.79	0.53
Q9ULG6 1xPhospho [S190]	CCPG1 S190	Cancer_only	-1.28	1.51	0.79	0.11
P42858 1xPhospho [S1199]	HTT S1199	Cancer_only	1.86	1.86	0.79	0.75
P51003 2xPhospho [S545;S553]	PAPOLA S545;S553	Cancer_only	1.92	1.32	0.78	0.68
Q9H4G0 1xPhospho [S648]	EPB41L1 S648	Cancer_only	1.20	1.44	0.78	0.41
Q3YEC7 2xPhospho [S640;S641]	RABL6 S640;S641	Cancer_only	2.42	1.53	0.78	0.88
Q7Z401 1xPhospho [S1128]	DENND4A S1128	Cancer_only	1.44	2.00	0.77	0.39
P46013 [1959-1990]	MKI67 1959-1990	Cancer_only	-1.34	1.58	0.77	0.49
O43314 1xPhospho [S493]	PPIP5K2 S493	Cancer_only	1.64	2.46	0.77	0.51
Q2M389 [1149-1173]	KIAA1033 1149-1173	Cancer_only	1.06	1.31	0.77	0.36
Q9BWC9 1xPhospho [S130]	CCDC106 S130	Cancer_only	1.48	1.42	0.77	0.54
P18858 1xPhospho [T183]	LIG1 T183	Cancer_only	1.66	1.37	0.76	0.49

Q9UK76 2xPhospho [S88;S92]	HN1 S88;S92	Cancer_only	1.46	1.39	0.76	0.38
Q8WUM0 [318-335]	NUP133 318-335	Cancer_only	1.06	2.22	0.75	1.15
O00512 1xPhospho [S19]	BCL9 S19	Cancer_only	1.47	1.64	0.75	0.49
P46821 1xPhospho [S1312]	MAP1B S1312	Cancer_only	1.88	1.31	0.74	0.77
O94763 1xPhospho [S449]	URI1 S449	Cancer_only	2.72	1.47	0.74	0.70
Q04726 1xPhospho [T319]	TLE3 T319	Cancer_only	1.14	1.77	0.73	0.74
P00533 2xPhospho [S1042;S1045]	EGFR S1042;S1045	Cancer_only	-1.16	2.37	0.73	0.44
Q9UFC0 1xPhospho [S243]	LRWD1 S243	Cancer_only	1.15	1.32	0.73	1.25
Q96LA8 1xPhospho [T21]	PRMT6 T21	Cancer_only	2.24	2.15	0.71	1.77
Q32MZ4 1xPhospho [S555]	LRRFIP1 S555	Cancer_only	3.06	2.28	0.71	0.59
P28290 2xPhospho [S92;S97]	SSFA2 S92;S97	Cancer_only	1.39	1.70	0.71	1.06
Q66K14 1xPhospho [S435]	TBC1D9B S435	Cancer_only	1.95	1.44	0.70	0.96
Q13555 1xPhospho [T287]	CAMK2G T287	Cancer_only	1.42	2.10	0.70	0.54
Q9H7S9 1xPhospho [S225]	ZNF703 S225	Cancer_only	1.56	2.21	0.70	0.59
Q9P0V9 1xPhospho [S28]	SEPTIN10 S28	Cancer_only	1.85	2.05	0.70	1.26
P42858 1xPhospho [S419]	HTT S419	Cancer_only	1.78	3.58	0.70	1.15
Q5T0N5 1xPhospho [S295]	FNBP1L S295	Cancer_only	1.80	1.38	0.69	0.74
O60573 1xPhospho [S13]	EIF4E2 S13	Cancer_only	1.08	1.32	0.68	0.50
Q6PJF5 2xPhospho [S113;S117]	RHBDF2 S113;S117	Cancer_only	1.72	1.41	0.68	0.48
Q9NS56 2xPhospho [S848;T/S]	TOPORS S848;T/S	Cancer_only	-1.14	2.02	0.67	0.40
Q8WU90 2xPhospho [S368;S371]	ZC3H15 S368;S371	Cancer_only	1.64	2.30	0.67	1.04
Q8N0Z3 1xPhospho [T235]	SPICE1 T235	Cancer_only	1.49	1.35	0.67	0.48
Q6P0Q8 1xPhospho [S66]	MAST2 S66	Cancer_only	2.42	1.58	0.66	0.45
Q96Q42 2xPhospho [S483;S492]	ALS2 S483;S492	Cancer_only	1.05	1.59	0.66	0.59
Q9P2T1 1xPhospho [S28]	GMPR2 S28	Cancer_only	1.30	1.38	0.65	0.55
Q9Y3S1 1xPhospho [S1150]	WNK2 S1150	Cancer_only	1.99	2.02	0.65	2.15

Q9BYV8 1xPhospho [S99]	CEP41 S99	Cancer_only	1.40	1.57	0.64	0.85
Q53GT1 1xPhospho [T605]	KLHL22 T605	Cancer_only	1.47	1.32	0.64	1.10
Q96QU1 1xPhospho [Y1149]	PCDH15 Y1149	Cancer_only	1.21	1.55	0.64	0.20
P46821 2xPhospho [S831;S832]	MAP1B S831;S832	Cancer_only	1.59	1.92	0.63	0.43
Q9Y294 1xPhospho [S192]	ASF1A S192	Cancer_only	-1.85	1.55	0.63	0.24
P13807 2xPhospho [S716;S731]	GYS1 S716;S731	Cancer_only	2.14	1.43	0.63	0.84
P51114 1xPhospho [S420]	FXR1 S420	Cancer_only	2.15	1.42	0.63	1.35
Q8IYB3 1xPhospho [S696]	SRRM1 S696	Cancer_only	1.03	1.42	0.63	0.25
Q92615 1xPhospho [S736]	LARP4B S736	Cancer_only	1.41	1.44	0.63	1.39
Q9UHI6 2xPhospho [S677;S678]	DDX20 S677;S678	Cancer_only	1.33	2.44	0.63	0.24
Q8NCE0 1xPhospho [S215]	TSEN2 S215	Cancer_only	1.02	1.32	0.62	0.45
P51858 2xPhospho [S132;S133]	HDGF S132;S133	Cancer_only	1.77	1.44	0.62	1.27
Q6PL18 [407-424]	ATAD2 407-424	Cancer_only	-2.03	2.45	0.62	0.15
Q9Y6Q9 1xPhospho [S694]	NCOA3 S694	Cancer_only	1.50	1.32	0.62	0.54
Q14135 1xPhospho [S52]	VGLL4 S52	Cancer_only	1.95	3.26	0.62	0.52
Q8IXQ4 1xPhospho [S105]	GPALPP1 S105	Cancer_only	1.09	1.41	0.62	0.69
Q66K74 1xPhospho [S472]	MAP1S S472	Cancer_only	2.90	1.34	0.61	1.56
Q8NDB6 1xPhospho [S11]	FAM156A S11	Cancer_only	1.74	1.38	0.61	0.31
Q6PJG6 1xPhospho [S742]	BRAT1 S742	Cancer_only	1.79	1.44	0.61	0.44
Q9Y6D5 2xPhospho [S614;T616]	ARFGEF2 S614;T616	Cancer_only	1.36	1.62	0.61	0.21
Q96E39 1xPhospho [S208]	RBMXL1 S208	Cancer_only	-1.60	2.11	0.61	0.13
P38159 1xPhospho [S208]	RBMX S208	Cancer_only	-1.60	2.11	0.61	0.13
Q14C86 1xPhospho [S748]	GAPVD1 S748	Cancer_only	1.01	1.45	0.60	0.46
P49407 1xPhospho [S412]	ARRB1 S412	Cancer_only	1.44	1.75	0.60	0.60
Q92994 2xPhospho [S358;T365]	BRF1 S358;T365	Cancer_only	1.15	1.61	0.59	0.31
O15075 [330-342]	DCLK1 330-342	Cancer_only	2.03	1.39	0.59	0.84

O43432 1xPhospho [S232]	EIF4G3 S232	Cancer_only	2.21	2.49	0.59	0.26
Q8WVD3 1xPhospho [S127]	RNF138 S127	Cancer_only	-1.36	1.38	0.59	0.53
P12268 1xPhospho [S416]	IMPDH2 S416	Cancer_only	1.27	1.60	0.58	0.75
Q96JG9 [2240-2256]	ZNF469 2240-2256	Cancer_only	-1.55	1.53	0.58	0.48
O96007 1xPhospho [S20]	MOCS2 S20	Cancer_only	1.50	1.52	0.58	1.09
O15085 1xPhospho [S35]	ARHGEF11 S35	Cancer_only	-1.09	2.07	0.58	0.18
Q63HN8 1xPhospho [S1258]	RNF213 S1258	Cancer_only	1.83	1.89	0.58	0.45
Q12802 2xPhospho [S1942;S1945]	AKAP13 S1942;S1945	Cancer_only	1.72	1.96	0.57	0.35
Q16825 2xPhospho [S710;S711]	PTPN21 S710;S711	Cancer_only	1.10	2.11	0.56	1.16
Q5VT06 2xPhospho [S1256;S1259]	CEP350 S1256;S1259	Cancer_only	1.23	1.33	0.56	1.88
Q9H6Z4 1xPhospho [S221]	RANBP3 S221	Cancer_only	1.29	1.54	0.56	1.25
O43765 2xPhospho [S77;T81]	SGTA S77;T81	Cancer_only	1.23	1.45	0.56	0.84
Q9UEY8 2xPhospho [S673;S677]	ADD3 S673;S677	Cancer_only	1.02	1.72	0.55	0.59
Q9P206 1xPhospho [S504]	KIAA1522 S504	Cancer_only	1.46	1.99	0.55	0.61
Q9NZL6 1xPhospho [S747]	RGL1 S747	Cancer_only	1.29	2.16	0.55	0.09
Q641Q2 [613-640]	FAM21A 613-640	Cancer_only	-1.74	2.84	0.55	0.42
Q9Y4E1 [613-640]	FAM21C 613-640	Cancer_only	-1.74	2.84	0.55	0.42
Q96B36 2xPhospho [S88;S92]	AKT1S1 S88;S92	Cancer_only	1.35	1.86	0.55	0.81
O15234 1xPhospho [S66]	CASC3 S66	Cancer_only	1.31	2.24	0.54	0.12
Q00613 1xPhospho [S303]	HSF1 S303	Cancer_only	1.11	1.48	0.54	0.78
Q02156 1xPhospho [S346]	PRKCE S346	Cancer_only	2.32	1.58	0.54	1.32
P10243 1xPhospho [S7]	MYBL1 S7	Cancer_only	1.33	1.31	0.54	0.65
Q96D71 1xPhospho [S562]	REPS1 S562	Cancer_only	1.82	2.35	0.53	0.26
Q9UH99 1xPhospho [S19]	SUN2 S19	Cancer_only	1.12	1.47	0.53	0.67
Q13615 1xPhospho [S633]	MTMR3 S633	Cancer_only	1.30	1.33	0.53	0.38
Q4VC05 1xPhospho [S114]	BCL7A S114	Cancer_only	1.03	2.46	0.53	0.50

Q3KQU3 1xPhospho [S446]	MAP7D1 S446	Cancer_only	-2.08	1.36	0.52	0.53
Q05469 1xPhospho [S855]	LIPE S855	Cancer_only	1.63	1.92	0.52	1.11
Q86TB9 [177-188]	PATL1 177-188	Cancer_only	1.36	1.64	0.52	0.40
Q8NCG7 2xPhospho [S583;S584]	DAGLB S583;S584	Cancer_only	-1.88	1.54	0.51	0.26
Q9BQA1 1xPhospho [T5]	WDR77 T5	Cancer_only	1.20	2.84	0.51	0.88
Q147X3 1xPhospho [S39]	NAA30 S39	Cancer_only	1.45	2.52	0.51	0.50
Q15154 2xPhospho [S1765;S1768]	PCM1 S1765;S1768	Cancer_only	1.06	1.32	0.51	0.22
Q8N573 2xPhospho [S201;S204]	OXR1 S201;S204	Cancer_only	1.59	1.57	0.51	0.57
P29692 1xPhospho [S162]	EEF1D S162	Cancer_only	1.12	1.83	0.51	0.80
Q9HAS0 1xPhospho [S18]	C17orf75 S18	Cancer_only	1.45	1.33	0.50	0.35
P41236 2xPhospho [S121;S122]	PPP1R2 S121;S122	Cancer_only	1.46	3.74	0.50	0.51
Q15149 1xPhospho [S2039]	PLEC S2039	Cancer_only	-1.09	1.86	0.50	0.89
Q9UJA5 1xPhospho [S288]	TRMT6 S288	Cancer_only	1.34	1.45	0.50	0.38
Q969H6 1xPhospho [S154]	POP5 S154	Cancer_only	1.03	1.34	0.50	0.35
Q6UB98 [1178-1191]	ANKRD12 1178-1191	Cancer_only	1.12	1.34	0.50	0.41
Q6P2E9 1xPhospho [S879]	EDC4 S879	Cancer_only	1.22	1.76	0.50	0.47
Q9H9E1 1xPhospho [S124]	ANKRA2 S124	Cancer_only	1.68	1.56	0.49	0.25
P50402 1xPhospho [S120]	EMD S120	Cancer_only	-1.62	1.93	0.49	0.16
Q9H8Y5 2xPhospho [S49;S56]	ANKZF1 S49;S56	Cancer_only	1.85	1.34	0.49	0.50
P49321 1xPhospho [T320]	NASP T320	Cancer_only	1.82	1.96	0.49	1.02
Q9NZN5 [327-345]	ARHGEF12 327-345	Cancer_only	1.17	2.48	0.49	0.35
Q86TB9 1xPhospho [S177]	PATL1 S177	Cancer_only	2.73	2.82	0.48	0.23
Q96PU4 1xPhospho [S667]	UHRF2 S667	Cancer_only	1.05	1.44	0.48	1.30
Q8IYB3 1xPhospho [S380]	SRRM1 S380	Cancer_only	1.31	1.78	0.48	0.31
Q9P0K7 1xPhospho [S335]	RAI14 S335	Cancer_only	1.80	1.44	0.48	0.29
Q9H4G0 2xPhospho [S639;S648]	EPB41L1 S639;S648	Cancer_only	1.11	2.26	0.48	0.49

Q9UKK3 2xPhospho [S1504;S1507]	PARP4 S1504;S1507	Cancer_only	-1.11	1.32	0.48	0.20
Q16512 1xPhospho [S916]	PKN1 S916	Cancer_only	1.42	1.86	0.48	0.50
P18846 1xPhospho [S72]	ATF1 S72	Cancer_only	1.19	2.75	0.48	0.10
P51826 1xPhospho [S881]	AFF3 S881	Cancer_only	-1.04	1.77	0.47	1.46
Q8IY17 2xPhospho [S1318;T1322]	PNPLA6 S1318;T1322	Cancer_only	1.42	1.55	0.47	0.50
Q9H0W5 1xPhospho [S103]	CCDC8 S103	Cancer_only	1.48	1.67	0.47	0.57
Q9H1E3 1xPhospho [S214]	NUCKS1 S214	Cancer_only	1.70	2.39	0.47	0.65
Q9BRK0 1xPhospho [S208]	REEP2 S208	Cancer_only	1.15	1.30	0.47	0.54
O94880 1xPhospho [S208]	PHF14 S208	Cancer_only	1.09	1.52	0.47	0.19
Q13442 2xPhospho [S60;S63]	PDAP1 S60;S63	Cancer_only	1.54	1.78	0.46	1.84
Q8WUA4 1xPhospho [S220]	GTF3C2 S220	Cancer_only	1.29	2.16	0.45	0.55
O95684 2xPhospho [T165;T170]	FGFR1OP T165;T170	Cancer_only	1.28	2.69	0.45	0.18
P49407 [398-418]	ARRB1 398-418	Cancer_only	1.33	2.37	0.45	0.51
Q6PIJ6 1xPhospho [S753]	FBXO38 S753	Cancer_only	-1.05	1.36	0.45	0.59
Q9Y3P9 1xPhospho [S42]	RABGAP1 S42	Cancer_only	2.51	2.03	0.44	0.46
Q14C86 1xPhospho [S966]	GAPVD1 S966	Cancer_only	1.87	1.41	0.44	1.04
Q7Z460 1xPhospho [S568]	CLASP1 S568	Cancer_only	1.06	1.69	0.44	0.09
Q96ER3 1xPhospho [S6]	SAAL1 S6	Cancer_only	1.02	1.34	0.43	0.50
O43156 1xPhospho [S828]	TTI1 S828	Cancer_only	1.26	1.47	0.43	0.97
Q15758 1xPhospho [S27]	SLC1A5 S27	Cancer_only	-1.15	1.75	0.42	1.07
P46821 1xPhospho [S1400]	MAP1B S1400	Cancer_only	1.86	1.55	0.42	0.27
P51825 2xPhospho [S203;S212]	AFF1 S203;S212	Cancer_only	-1.19	2.29	0.42	0.18
Q9C0C2 2xPhospho [S1620;S1621]	TNKS1BP1 S1620;S1621	Cancer_only	1.04	1.51	0.41	0.54
Q9UEW8 1xPhospho [S385]	STK39 S385	Cancer_only	1.64	1.44	0.41	0.73
Q9UMZ2 [999-1033]	SYNRG 999-1033	Cancer_only	1.14	1.94	0.41	0.64
Q8WUI4 1xPhospho [S486]	HDAC7 S486	Cancer_only	1.66	1.75	0.41	1.24

O15126 [29-52]	SCAMP1 29-52	Cancer_only	-1.05	2.22	0.41	0.19
Q86YS7 1xPhospho [S659]	C2CD5 S659	Cancer_only	1.72	3.04	0.40	0.24
O43149 1xPhospho [S1473]	ZZEF1 S1473	Cancer_only	1.05	1.35	0.40	1.04
Q9UDY2 1xPhospho [S1159]	TJP2 S1159	Cancer_only	1.40	1.51	0.40	0.31
O00203 1xPhospho [S276]	AP3B1 S276	Cancer_only	1.24	1.35	0.39	0.99
Q9UPQ0 1xPhospho [S670]	LIMCH1 S670	Cancer_only	1.13	2.03	0.39	1.63
Q86WR7 1xPhospho [S8]	PROSER2 S8	Cancer_only	1.02	1.95	0.39	0.17
Q9H2G2 1xPhospho [S189]	SLK S189	Cancer_only	1.42	1.81	0.38	0.19
P46821 2xPhospho [S1260;S1265]	MAP1B S1260;S1265	Cancer_only	1.49	2.18	0.38	0.48
Q8N1G4 1xPhospho [S520]	LRRC47 S520	Cancer_only	1.38	2.21	0.38	0.55
Q96RL1 1xPhospho [S350]	UIMC1 S350	Cancer_only	2.09	1.33	0.38	0.09
P18583 1xPhospho [S94]	SON S94	Cancer_only	-1.33	1.35	0.38	0.60
O14976 1xPhospho [S829]	GAK S829	Cancer_only	1.56	1.63	0.37	0.78
O14776 1xPhospho [S638]	TCERG1 S638	Cancer_only	1.33	1.56	0.37	0.51
P31629 1xPhospho [S1085]	HIVEP2 S1085	Cancer_only	1.57	1.76	0.36	0.73
P11274 1xPhospho [S1264]	BCR S1264	Cancer_only	-1.64	1.44	0.36	0.17
P62993 1xPhospho [S90]	GRB2 S90	Cancer_only	1.37	1.92	0.35	0.17
Q92628 1xPhospho [S1294]	KIAA0232 S1294	Cancer_only	1.80	1.60	0.35	0.90
O94988 1xPhospho [S652]	FAM13A S652	Cancer_only	1.77	1.31	0.35	0.11
Q14558 1xPhospho [S215]	PRPSAP1 S215	Cancer_only	1.52	1.47	0.35	1.16
Q13404 1xPhospho [S146]	UBE2V1 S146	Cancer_only	1.19	1.38	0.35	0.26
O00203 2xPhospho [S750;S752]	AP3B1 S750;S752	Cancer_only	2.04	1.67	0.35	0.28
O60841 2xPhospho [S135;S137]	EIF5B S135;S137	Cancer_only	1.06	2.18	0.34	0.72
Q15154 [527-549]	PCM1 527-549	Cancer_only	-4.44	1.40	0.34	0.38
P18858 2xPhospho [T918;S/Y]	LIG1 T918;S/Y	Cancer_only	1.58	1.89	0.33	0.17
Q13409 1xPhospho [S51]	DYNC1I2 S51	Cancer_only	2.28	1.73	0.33	0.32

O43432 1xPhospho [S1409]	EIF4G3 S1409	Cancer_only	1.24	1.37	0.32	0.86
O60841 1xPhospho [S113]	EIF5B S113	Cancer_only	1.11	1.40	0.32	1.70
Q86W56 1xPhospho [S197]	PARG S197	Cancer_only	1.44	1.47	0.32	1.08
O95359 1xPhospho [S2359]	TACC2 S2359	Cancer_only	1.23	1.32	0.31	0.98
P41227 2xPhospho [S186;S190]	NAA10 S186;S190	Cancer_only	1.12	1.34	0.31	0.30
O75351 1xPhospho [S102]	VPS4B S102	Cancer_only	1.38	1.98	0.31	0.76
O60551 [57-76]	NMT2 57-76	Cancer_only	1.86	1.68	0.31	0.36
Q92538 1xPhospho [S1318]	GBF1 S1318	Cancer_only	1.60	1.74	0.30	0.32
Q9UPU7 1xPhospho [S957]	TBC1D2B S957	Cancer_only	1.40	1.37	0.30	1.35
Q9P1Y5 1xPhospho [S334]	CAMSAP3 S334	Cancer_only	1.21	1.37	0.29	0.32
Q96JM3 1xPhospho [S436]	CHAMP1 S436	Cancer_only	-1.44	2.22	0.29	0.06
Q5SW79 1xPhospho [S971]	CEP170 S971	Cancer_only	1.42	1.95	0.28	0.49
Q15276 1xPhospho [S162]	RABEP1 S162	Cancer_only	1.18	1.43	0.28	0.38
Q9Y485 1xPhospho [S436]	DMXL1 S436	Cancer_only	1.20	1.55	0.27	0.52
Q96PE2 1xPhospho [S420]	ARHGEF17 S420	Cancer_only	1.68	1.59	0.26	0.47
Q5T1R4 2xPhospho [S917;S921]	HIVEP3 S917;S921	Cancer_only	2.17	1.85	0.26	0.09
Q9Y2L9 2xPhospho [S532;S536]	LRCH1 S532;S536	Cancer_only	1.33	1.55	0.26	0.13
Q12802 1xPhospho [S395]	AKAP13 S395	Cancer_only	1.90	1.45	0.25	0.36
Q7Z6Z7 1xPhospho [S1907]	HUWE1 S1907	Cancer_only	1.68	1.33	0.25	1.27
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S1441]	MAP1A S1441	Cancer_only	1.78	1.77	0.25	0.61
P78559 1xPhospho [S1203]	MAP1A S1203	Cancer_only	1.78	1.77	0.25	0.61
P31751 1xPhospho [T451]	AKT2 T451	Cancer_only	1.62	1.44	0.25	0.30
Q8WUI4 1xPhospho [S155]	HDAC7 S155	Cancer_only	1.33	1.64	0.24	0.24
Q8N3J5 1xPhospho [S248]	PPM1K S248	Cancer_only	1.79	1.34	0.24	0.52
Q8TEQ6 1xPhospho [S778]	GEMIN5 S778	Cancer_only	1.17	1.38	0.24	0.47

P21127 1xPhospho [S234]	CDK11B S234	Cancer_only	1.07	3.03	0.24	0.22
Q9UQ88 1xPhospho [S222]	CDK11A S222	Cancer_only	1.07	3.03	0.24	0.22
P46821 1xPhospho [S2256]	MAP1B S2256	Cancer_only	2.38	1.35	0.23	0.31
Q8NDI1 1xPhospho [S751]	EHBP1 S751	Cancer_only	1.90	1.34	0.23	0.18
Q96JQ2 1xPhospho [S526]	CLMN S526	Cancer_only	-1.14	3.01	0.23	0.12
P01106 2xPhospho [S347;S348]	MYC S347;S348	Cancer_only	-1.22	1.68	0.23	0.08
Q9NVD7 2xPhospho [S14;S19]	PARVA S14;S19	Cancer_only	1.06	1.46	0.23	0.24
P06733 1xPhospho [S263]	ENO1 S263	Cancer_only	1.46	1.45	0.22	0.06
P26639 1xPhospho [S702]	TARS S702	Cancer_only	1.46	2.49	0.22	0.48
Q9NQS1 1xPhospho [S94]	AVEN S94	Cancer_only	1.39	1.63	0.22	0.13
Q9NS56 1xPhospho [S98]	TOPORS S98	Cancer_only	-1.59	1.74	0.22	0.22
Q8N6H7 1xPhospho [S433]	ARFGAP2 S433	Cancer_only	1.07	1.49	0.21	0.15
Q9Y4B5 1xPhospho [S776]	MTCL1 S776	Cancer_only	1.08	2.48	0.20	0.25
Q9ULM3 1xPhospho [S519]	YEATS2 S519	Cancer_only	1.01	1.74	0.20	0.08
Q9UQ35 2xPhospho [S1103;T1106]	SRRM2 S1103;T1106	Cancer_only	-1.07	1.45	0.20	0.17
Q9UKY7 1xPhospho [S107]	CDV3 S107	Cancer_only	1.97	1.50	0.20	0.24
Q96Q42 1xPhospho [S466]	ALS2 S466	Cancer_only	1.76	1.54	0.20	0.08
Q96A00 2xPhospho [S134;S136]	PPP1R14A S134;S136	Cancer_only	1.29	1.63	0.20	0.13
P51692 1xPhospho [S128]	STAT5B S128	Cancer_only	1.17	4.33	0.19	0.52
O15234 [32-52]	CASC3 32-52	Cancer_only	1.82	1.77	0.19	0.88
Q9Y2G4 1xPhospho [S328]	ANKRD6 S328	Cancer_only	1.19	1.33	0.19	2.19
Q5T0N5 1xPhospho [S501]	FNBP1L S501	Cancer_only	1.19	2.29	0.19	0.12
Q86T82 1xPhospho [S650]	USP37 S650	Cancer_only	1.78	1.84	0.18	0.16
Q96T37 2xPhospho [S722;S724]	RBM15 S722;S724	Cancer_only	-1.02	1.86	0.18	0.09
Q14168 2xPhospho [T141;S145]	MPP2 T141;S145	Cancer_only	-1.14	1.57	0.17	0.21
Q9Y6X4 2xPhospho [S378;S379]	FAM169A S378;S379	Cancer_only	1.03	1.42	0.16	0.09

Q16204 1xPhospho [S244]	CCDC6 S244	Cancer_only	2.37	1.52	0.16	0.49
Q13459 1xPhospho [S1992]	MYO9B S1992	Cancer_only	1.19	1.46	0.15	0.31
Q8WYH8 2xPhospho [S148;T152]	ING5 S148;T152	Cancer_only	-1.47	1.42	0.14	0.15
O00499 1xPhospho [S296]	BIN1 S296	Cancer_only	1.06	1.39	0.14	0.44
Q9UBF8 1xPhospho [S266]	PI4KB S266	Cancer_only	1.14	1.40	0.14	0.21
Q9P260 1xPhospho [S193]	KIAA1468 S193	Cancer_only	1.77	1.79	0.13	0.14
Q9BWT1 1xPhospho [S190]	CDCA7 S190	Cancer_only	-2.08	1.36	0.13	0.06
P07741 1xPhospho [S30]	APRT S30	Cancer_only	2.03	1.98	0.13	0.15
Q9NTJ3 2xPhospho [S41;S50]	SMC4 S41;S50	Cancer_only	-2.00	2.90	0.12	0.17
Q9NWZ5 1xPhospho [T547]	UCKL1 T547	Cancer_only	1.48	3.03	0.12	0.16
Q9H4A3 1xPhospho [S185]	WNK1 S185	Cancer_only	1.06	1.86	0.11	0.06
O75976 1xPhospho [T1368]	CPD T1368	Cancer_only	-1.33	1.45	0.11	1.05
O94979 1xPhospho [S527]	SEC31A S527	Cancer_only	1.93	1.31	0.11	0.04
Q6W2J9 1xPhospho [S1139]	BCOR S1139	Cancer_only	-1.33	1.79	0.10	0.04
Q09666 [5385-5405]	AHNAK 5385-5405	Cancer_only	-2.01	1.52	0.10	0.45
Q8N9B5 1xPhospho [S974]	JMY S974	Cancer_only	1.03	1.57	0.09	0.06
Q96FG2 1xPhospho [S7]	ELMOD3 S7	Cancer_only	-1.20	1.83	0.09	0.03
O60499 1xPhospho [S108]	STX10 S108	Cancer_only	1.32	1.47	0.09	0.04
O60285 1xPhospho [S445]	NUAK1 S445	Cancer_only	1.54	1.73	0.08	0.15
Q9Y6X8 [808-837]	ZHX2 808-837	Cancer_only	1.32	1.35	0.08	0.24
P35579 1xPhospho [S1943]	MYH9 S1943	Cancer_only	1.40	2.16	0.08	0.30
Q13796 [1414-1436]	SHROOM2 1414-1436	Cancer_only	1.98	1.64	0.08	0.02
Q92538 1xPhospho [S1335]	GBF1 S1335	Cancer_only	1.08	1.74	0.08	0.21
Q01130 2xPhospho [S191;S]	SRSF2 S191;S	Cancer_only	-2.08	2.91	0.08	0.03
Q9UJF2 1xPhospho [S864]	RASAL2 S864	Cancer_only	3.53	1.67	0.08	0.02
Q9BRK5 1xPhospho [T193]	SDF4 T193	Cancer_only	-1.43	1.69	0.07	0.05

P61981 1xPhospho [S71]	YWHAG S71	Cancer_only	1.41	1.81	0.06	0.52
P46013 1xPhospho [S2708]	MKI67 S2708	Cancer_only	-1.42	1.57	0.06	0.78
P55209 1xPhospho [S10]	NAP1L1 S10	Cancer_only	2.26	1.86	0.06	0.01
Q9BXJ9 1xPhospho [S855]	NAA15 S855	Cancer_only	1.21	1.84	0.05	0.03
O14924 2xPhospho [S661;S667]	RGS12 S661;S667	Cancer_only	1.47	2.39	0.05	0.34
P26640 1xPhospho [T284]	VARS T284	Cancer_only	-1.51	1.51	0.05	0.07
Q9UBF8 2xPhospho [S258;S266]	PI4KB S258;S266	Cancer_only	-2.29	1.76	0.04	0.06
Q5JSZ5 1xPhospho [S480]	PRRC2B S480	Cancer_only	1.38	1.41	0.04	0.03
O75665 1xPhospho [S1011]	OFD1 S1011	Cancer_only	1.48	1.30	0.04	0.02
Q99575 [926-954]	POP1 926-954	Cancer_only	1.35	1.34	0.04	0.01
Q96GX9 1xPhospho [S87]	APIP S87	Cancer_only	1.15	2.01	0.04	0.03
Q8IZD2 [257-276]	KMT2E 257-276	Cancer_only	1.02	1.58	0.03	0.02
O95359 1xPhospho [S2390]	TACC2 S2390	Cancer_only	2.00	3.26	0.03	0.02
Q15642 2xPhospho [S296;S/T]	TRIP10 S296;S/T	Cancer_only	1.17	1.35	0.03	0.03
Q9ULV3 1xPhospho [S332]	CIZ1 S332	Cancer_only	-1.42	2.52	0.02	0.57
Q9Y490 1xPhospho [S2162]	TLN1 S2162	Cancer_only	1.07	1.39	0.02	0.02
Q13029 2xPhospho [S914;T/S/Y]	PRDM2 S914;T/S/Y	Cancer_only	-1.22	1.53	0.02	0.02
P85037 2xPhospho [T436;S441]	FOXK1 T436;S441	Cancer_only	1.51	1.36	0.02	0.01
Q86VR2 1xPhospho [S26]	FAM134C S26	Cancer_only	-1.59	1.34	0.02	0.03
Q1KMD3 2xPhospho [T165;S168]	HNRNPUL2 T165;S168	Cancer_only	-1.39	1.81	0.01	0.02
Q3YEC7 [639-645]	RABL6 639-645	Cancer_only	1.53	1.40	0.01	0.02
Q9UPP1 [690-717]	PHF8 690-717	Cancer_only	1.90	1.41	0.00	0.00
Q96A00 1xPhospho [S128]	PPP1R14A S128	Cancer_only	1.06	1.35	0.00	0.00
Q8NE71 1xPhospho [S140]	ABCF1 S140	Cancer_only	1.31	1.38	0.00	0.00
Q96RY5 2xPhospho [S533;S556]	CRAMP1L S533;S556	Cancer_only	-2.38	1.38	0.00	0.00
O43598 1xPhospho [S169]	DNPH1 S169	Cancer_only	1.61	1.53	0.00	0.00

Q9UK58 2xPhospho [S372;S374]	CCNL1 S372;S374	Cancer_only	1.21	1.58	-0.01	0.00
Q6PFW1 1xPhospho [S964]	PPIP5K1 S964	Cancer_only	1.00	1.34	-0.01	0.00
P51398 1xPhospho [Y323]	DAP3 Y323	Cancer_only	1.22	1.73	-0.02	0.01
P51956 1xPhospho [T479]	NEK3 T479	Cancer_only	1.44	1.63	-0.02	0.10
Q15366 [355-365]	PCBP2 355-365	Cancer_only	1.88	1.41	-0.03	0.01
Q08AD1 1xPhospho [S1148]	CAMSAP2 S1148	Cancer_only	1.32	1.34	-0.03	0.07
Q9GZT3 1xPhospho [S102]	SLIRP S102	Cancer_only	-1.59	2.58	-0.03	0.06
Q9Y2H2 1xPhospho [S935]	INPP5F S935	Cancer_only	2.74	1.53	-0.04	0.02
P10124 1xPhospho [S144]	SRGN S144	Cancer_only	-2.57	1.67	-0.04	0.02
O00499 1xPhospho [S303]	BIN1 S303	Cancer_only	1.53	1.42	-0.04	0.09
Q8NEZ4 1xPhospho [S4034]	KMT2C S4034	Cancer_only	-1.32	1.56	-0.05	0.02
Q9Y4F3 1xPhospho [S715]	KIAA0430 S715	Cancer_only	1.34	1.32	-0.05	0.11
Q14195 1xPhospho [S522]	DPYSL3 S522	Cancer_only	1.30	1.74	-0.05	0.11
Q709C8 1xPhospho [S1894]	VPS13C S1894	Cancer_only	2.64	1.42	-0.05	0.03
Q96GX5 1xPhospho [S453]	MASTL S453	Cancer_only	1.39	1.33	-0.05	0.02
Q9UPU5 1xPhospho [S2047]	USP24 S2047	Cancer_only	1.71	1.42	-0.05	0.18
Q96LR5 1xPhospho [S19]	UBE2E2 S19	Cancer_only	1.94	1.42	-0.06	0.04
Q9HCL0 2xPhospho [S778;S780]	PCDH18 S778;S780	Cancer_only	1.26	2.21	-0.08	0.03
Q96RV3 1xPhospho [T137]	PCNX T137	Cancer_only	-1.45	1.60	-0.08	0.16
Q6ZVH7 1xPhospho [S786]	ESPNL S786	Cancer_only	1.40	2.55	-0.08	0.34
P42696 1xPhospho [S28]	RBM34 S28	Cancer_only	-2.28	3.27	-0.08	0.03
Q12767 2xPhospho [S801;S]	KIAA0195 S801;S	Cancer_only	-1.24	1.40	-0.08	0.21
P17302 2xPhospho [S282;S/Y/T]	GJA1 S282;S/Y/T	Cancer_only	-2.09	1.91	-0.08	0.06
Q8IZL8 2xPhospho [S477;S481]	PELP1 S477;S481	Cancer_only	-1.55	1.57	-0.09	0.02
Q9HCD6 1xPhospho [S1740]	TANC2 S1740	Cancer_only	-1.99	1.96	-0.10	0.15
O60343 1xPhospho [S570]	TBC1D4 S570	Cancer_only	1.90	2.17	-0.11	0.04

P37275 1xPhospho [S679]	ZEB1 S679	Cancer_only	-1.35	2.14	-0.11	0.38
Q13188 [308-328]	STK3 308-328	Cancer_only	1.47	1.50	-0.12	0.11
O00391 1xPhospho [S426]	QSOX1 S426	Cancer_only	-1.63	2.11	-0.12	0.49
P48681 1xPhospho [S578]	NES S578	Cancer_only	-2.39	2.09	-0.12	0.13
P46100 [971-983]	ATRX 971-983	Cancer_only	-1.81	1.76	-0.12	0.06
O43572 1xPhospho [S281]	AKAP10 S281	Cancer_only	1.77	1.43	-0.12	0.04
Q8NHM5 1xPhospho [S914]	KDM2B S914	Cancer_only	-2.09	1.44	-0.13	0.08
Q13017 1xPhospho [S1173]	ARHGAP5 S1173	Cancer_only	1.06	2.33	-0.14	0.08
Q9H2I8 [145-156]	C10orf11 145-156	Cancer_only	1.53	3.46	-0.14	0.14
B3KU38 1xPhospho [S406]	IQCJ-SCHIP1 S406	Cancer_only	1.17	1.32	-0.15	0.50
Q07955 2xPhospho [S201;S205]	SRSF1 S201;S205	Cancer_only	-1.61	1.70	-0.16	0.11
Q9NTJ3 1xPhospho [S28]	SMC4 S28	Cancer_only	1.09	2.08	-0.16	0.21
Q9H6H4 1xPhospho [S194]	REEP4 S194	Cancer_only	1.30	1.55	-0.17	0.06
P22392 1xPhospho [S44]	NME2 S44	Cancer_only	1.03	1.66	-0.17	0.61
Q9ULH1 1xPhospho [S1041]	ASAP1 S1041	Cancer_only	1.02	1.78	-0.17	0.06
Q8IZL8 2xPhospho [S658;T]	PELP1 S658;T	Cancer_only	-2.42	2.05	-0.18	0.02
Q9UMS6 2xPhospho [S902;T/S]	SYNPO2 S902;T/S	Cancer_only	1.46	1.33	-0.18	0.16
O43493 1xPhospho [S196]	TGOLN2 S196	Cancer_only	-2.44	1.54	-0.19	0.40
Q9P270 2xPhospho [S315;S323]	SLAIN2 S315;S323	Cancer_only	1.14	1.37	-0.19	0.04
O94929 2xPhospho [S372;S373]	ABLIM3 S372;S373	Cancer_only	-1.22	1.55	-0.19	0.18
P25440 2xPhospho [S298;S301]	BRD2 S298;S301	Cancer_only	-1.20	1.48	-0.20	0.12
P09211 1xPhospho [S43]	GSTP1 S43	Cancer_only	1.40	1.62	-0.21	0.22
Q969V6 [444-460]	MKL1 444-460	Cancer_only	1.96	1.40	-0.21	0.07
P07948 1xPhospho [Y316]	LYN Y316	Cancer_only	-1.32	1.42	-0.21	0.16
Q9NQC3 1xPhospho [S107]	RTN4 S107	Cancer_only	-1.51	2.66	-0.21	1.49
Q9NWW5 1xPhospho [S31]	CLN6 S31	Cancer_only	-1.67	1.42	-0.22	0.05

Q8N5C8 [504-523]	TAB3 504-523	Cancer_only	1.05	2.10	-0.22	0.87
Q04656 2xPhospho [S1473;S1476]	ATP7A S1473;S1476	Cancer_only	2.34	1.50	-0.22	0.76
Q13615 1xPhospho [S613]	MTMR3 S613	Cancer_only	1.78	1.62	-0.23	0.29
Q96QD9 1xPhospho [S23]	FYTTD1 S23	Cancer_only	-1.02	2.84	-0.24	0.55
Q96SK2 1xPhospho [S147]	TMEM209 S147	Cancer_only	-1.57	1.50	-0.24	0.12
O75175 1xPhospho [S299]	CNOT3 S299	Cancer_only	1.32	1.53	-0.25	0.16
O43795 1xPhospho [S65]	MYO1B S65	Cancer_only	-1.61	2.08	-0.25	0.31
Q9UDY2 2xPhospho [S986;S]	TJP2 S986;S	Cancer_only	1.53	2.04	-0.25	0.13
Q8WWI1 1xPhospho [S805]	LMO7 S805	Cancer_only	1.34	1.40	-0.25	0.07
Q9Y6Y0 1xPhospho [S246]	IVNS1ABP S246	Cancer_only	5.03	1.54	-0.25	0.12
P52948 1xPhospho [S681]	NUP98 S681	Cancer_only	-1.34	1.70	-0.25	0.08
Q9Y3P9 1xPhospho [S508]	RABGAP1 S508	Cancer_only	1.55	2.04	-0.26	0.76
Q03164 1xPhospho [T337]	KMT2A T337	Cancer_only	-1.30	1.81	-0.26	0.48
P51532 1xPhospho [T1423]	SMARCA4 T1423	Cancer_only	-1.29	1.49	-0.26	0.15
Q6IQ23 2xPhospho [S604;S612]	PLEKHA7 S604;S612	Cancer_only	-1.06	1.51	-0.26	0.34
Q7Z6B7 1xPhospho [S926]	SRGAP1 S926	Cancer_only	1.21	1.93	-0.26	0.11
A1X283 1xPhospho [S720]	SH3PXD2B S720	Cancer_only	1.14	1.38	-0.27	0.06
Q96N67 1xPhospho [S896]	DOCK7 S896	Cancer_only	1.70	1.92	-0.27	0.04
Q6XZF7 1xPhospho [S659]	DNMBP S659	Cancer_only	1.91	2.42	-0.27	0.35
Q13615 1xPhospho [T731]	MTMR3 T731	Cancer_only	-1.18	1.73	-0.28	0.20
Q5SNT2 2xPhospho [S611;S612]	TMEM201 S611;S612	Cancer_only	-1.42	3.02	-0.28	0.11
P18583 1xPhospho [S1782]	SON S1782	Cancer_only	-1.46	1.34	-0.28	0.40
P57737 1xPhospho [S21]	CORO7 S21	Cancer_only	1.11	1.39	-0.29	0.66
Q9Y5J1 2xPhospho [S206;S210]	UTP18 S206;S210	Cancer_only	-1.23	2.20	-0.30	0.15
Q8N614 1xPhospho [S262]	TMEM156 S262	Cancer_only	-1.04	1.31	-0.30	0.12
P15822 1xPhospho [S670]	HIVEP1 S670	Cancer_only	3.23	1.47	-0.31	0.33

Q9UN79 [331-352]	SOX13 331-352	Cancer_only	3.03	1.86	-0.31	0.07
Q5T5U3 1xPhospho [T747]	ARHGAP21 T747	Cancer_only	-1.02	1.66	-0.32	0.50
P31153 1xPhospho [S114]	MAT2A S114	Cancer_only	-1.66	3.37	-0.32	0.05
P13521 1xPhospho [S521]	SCG2 S521	Cancer_only	-1.79	1.66	-0.32	0.18
Q09666 1xPhospho [S5310]	AHNAK S5310	Cancer_only	-1.22	1.64	-0.33	0.11
Q8NDI1 2xPhospho [S171;S174]	EHBP1 S171;S174	Cancer_only	1.03	1.32	-0.33	0.19
Q9ULH1 1xPhospho [S1008]	ASAP1 S1008	Cancer_only	1.25	1.66	-0.33	0.25
P78347 1xPhospho [S412]	GTF2I S412	Cancer_only	-1.07	1.52	-0.33	0.54
Q9H501 1xPhospho [S153]	ESF1 S153	Cancer_only	-1.23	1.66	-0.34	0.35
Q6WKZ4 1xPhospho [S529]	RAB11FIP1 S529	Cancer_only	-1.14	1.38	-0.34	0.55
Q5JRA6 1xPhospho [S186]	MIA3 S186	Cancer_only	-1.67	1.54	-0.34	0.45
Q96QD8 1xPhospho [S29]	SLC38A2 S29	Cancer_only	-1.31	1.35	-0.34	0.55
Q9H4Z2 1xPhospho [S988]	ZNF335 S988	Cancer_only	-1.00	1.37	-0.35	0.52
Q8N2U9 1xPhospho [S110]	PQLC1 S110	Cancer_only	-1.53	1.99	-0.36	0.23
P25054 1xPhospho [S130]	APC S130	Cancer_only	-1.18	1.38	-0.36	0.28
Q6ULP2 2xPhospho [S376;S382]	AFTPH S376;S382	Cancer_only	1.81	1.48	-0.36	0.20
Q3KR37 1xPhospho [S274]	GRAMD1B S274	Cancer_only	-1.62	2.20	-0.36	0.41
Q5VVQ6 1xPhospho [S130]	YOD1 S130	Cancer_only	1.42	2.19	-0.36	0.30
Q96A49 1xPhospho [T248]	SYAP1 T248	Cancer_only	1.26	1.99	-0.37	0.18
P08581 1xPhospho [S1390]	MET S1390	Cancer_only	1.31	1.34	-0.37	0.99
Q06481 1xPhospho [T736]	APLP2 T736	Cancer_only	-2.13	1.81	-0.37	0.46
Q9H813 [7-36]	TMEM206 7-36	Cancer_only	-1.19	1.80	-0.37	0.12
O94979 [520-548]	SEC31A 520-548	Cancer_only	2.39	1.33	-0.37	1.47
Q8N3F8 2xPhospho [S640;S644]	MICALL1 S640;S644	Cancer_only	-1.16	1.38	-0.38	0.32
Q9HB58 1xPhospho [S380]	SP110 S380	Cancer_only	-1.02	1.87	-0.38	0.28
P35613 1xPhospho [S362]	BSG S362	Cancer_only	-1.32	2.72	-0.39	0.44

Q9UQ35 1xPhospho [S456]	SRRM2 S456	Cancer_only	-1.09	1.35	-0.40	0.21
Q9P227 1xPhospho [S611]	ARHGAP23 S611	Cancer_only	-1.20	1.44	-0.41	0.16
P17812 2xPhospho [S574;S575]	CTPS1 S574;S575	Cancer_only	1.39	1.74	-0.41	0.35
P41227 1xPhospho [S205]	NAA10 S205	Cancer_only	2.14	1.76	-0.41	0.36
Q96T37 1xPhospho [S622]	RBM15 S622	Cancer_only	-3.06	2.03	-0.41	0.87
Q7Z333 1xPhospho [S947]	SETX S947	Cancer_only	-1.40	2.06	-0.42	0.30
P08670 2xPhospho [S22;S26]	VIM S22;S26	Cancer_only	-2.41	2.04	-0.42	0.41
Q15185 2xPhospho [S113;S118]	PTGES3 S113;S118	Cancer_only	1.55	1.33	-0.42	0.28
Q16706 2xPhospho [S80;S82]	MAN2A1 S80;S82	Cancer_only	-1.39	1.67	-0.43	0.64
P51532 1xPhospho [S1430]	SMARCA4 S1430	Cancer_only	-1.28	1.51	-0.43	0.43
O43900 1xPhospho [S475]	PRICKLE3 S475	Cancer_only	-1.13	2.65	-0.43	0.21
P48551 1xPhospho [S400]	IFNAR2 S400	Cancer_only	-1.37	2.17	-0.43	0.38
Q8WZ73 2xPhospho [S240;T245]	RFFL S240;T245	Cancer_only	-1.35	2.00	-0.43	0.22
Q5JTV8 1xPhospho [S242]	TOR1AIP1 S242	Cancer_only	-1.04	1.33	-0.44	0.23
Q8NEF9 2xPhospho [S247;S264]	SRFBP1 S247;S264	Cancer_only	-2.00	1.48	-0.44	0.30
P57740 1xPhospho [S129]	NUP107 S129	Cancer_only	1.12	1.83	-0.44	0.45
Q9GZR7 2xPhospho [S82;S94]	DDX24 S82;S94	Cancer_only	-1.04	2.13	-0.45	0.12
A6NHR9 1xPhospho [S1709]	SMCHD1 S1709	Cancer_only	-1.98	1.67	-0.45	0.60
P35613 1xPhospho [S368]	BSG S368	Cancer_only	-1.02	1.96	-0.46	0.05
Q8N3X1 1xPhospho [S18]	FNBP4 S18	Cancer_only	-1.04	5.00	-0.47	0.13
Q6UX68 1xPhospho [S622]	XKR5 S622	Cancer_only	2.50	1.94	-0.47	0.46
Q6ZTI6 1xPhospho [S33]	FAM101A S33	Cancer_only	-1.22	1.40	-0.47	0.44
Q9Y383 1xPhospho [S347]	LUC7L2 S347	Cancer_only	-1.17	1.31	-0.48	0.08
Q6P2E9 2xPhospho [S734;T/S]	EDC4 S734;T/S	Cancer_only	1.38	2.55	-0.49	0.17
P43007 [502-528]	SLC1A4 502-528	Cancer_only	-2.52	1.62	-0.49	0.85
Q15149 1xPhospho [S4396]	PLEC S4396	Cancer_only	-1.01	1.40	-0.50	1.87

O75533 1xPhospho [T296]	SF3B1 T296	Cancer_only	-1.93	1.86	-0.50	0.15
O43493 1xPhospho [S154]	TGOLN2 S154	Cancer_only	-2.88	1.41	-0.51	1.11
Q9H501 1xPhospho [S657]	ESF1 S657	Cancer_only	-1.12	1.45	-0.52	0.40
Q02880 1xPhospho [S1236]	TOP2B S1236	Cancer_only	-1.20	1.70	-0.52	0.36
Q9P270 2xPhospho [S247;S250]	SLAIN2 S247;S250	Cancer_only	1.28	1.77	-0.52	0.42
Q15154 1xPhospho [S991]	PCM1 S991	Cancer_only	-1.97	1.98	-0.53	0.64
O43491 1xPhospho [S598]	EPB41L2 S598	Cancer_only	-1.03	1.65	-0.53	0.33
Q96PK6 1xPhospho [S623]	RBM14 S623	Cancer_only	-3.19	2.04	-0.54	0.17
Q09666 2xPhospho [S5867;S5870]	AHNAK S5867;S5870	Cancer_only	-1.21	1.61	-0.54	1.08
O15213 1xPhospho [S41]	WDR46 S41	Cancer_only	-1.34	1.87	-0.54	0.50
Q9UER7 1xPhospho [S412]	DAXX S412	Cancer_only	2.08	1.52	-0.55	0.28
Q9H9J4 1xPhospho [S1166]	USP42 S1166	Cancer_only	-2.13	2.09	-0.55	0.18
P46939 2xPhospho [S1795;S1796]	UTRN S1795;S1796	Cancer_only	1.08	1.36	-0.55	0.70
O14686 1xPhospho [S618]	KMT2D S618	Cancer_only	-1.23	1.30	-0.55	0.14
A0AV02 1xPhospho [S440]	SLC12A8 S440	Cancer_only	-1.72	1.47	-0.55	0.29
Q9Y6Y0 2xPhospho [S322;S325]	IVNS1ABP S322;S325	Cancer_only	3.45	2.36	-0.56	1.78
Q9H4X1 [63-85]	RGCC 63-85	Cancer_only	1.29	1.36	-0.56	0.43
Q9NP66 1xPhospho [S105]	HMG20A S105	Cancer_only	-1.18	1.76	-0.56	0.65
Q99459 1xPhospho [T424]	CDC5L T424	Cancer_only	-1.73	1.57	-0.56	0.47
Q9NS91 1xPhospho [S471]	RAD18 S471	Cancer_only	-1.13	1.57	-0.56	1.12
Q9H4G0 2xPhospho [S678;S/T]	EPB41L1 S678;S/T	Cancer_only	-1.40	1.71	-0.56	0.09
Q96JG9 1xPhospho [S1903]	ZNF469 S1903	Cancer_only	-1.81	1.39	-0.56	1.01
Q76FK4 [1097-1108]	NOL8 1097-1108	Cancer_only	-1.77	1.62	-0.56	0.35
Q96N46 1xPhospho [S629]	TTC14 S629	Cancer_only	-2.04	1.48	-0.57	0.10
Q8NI27 1xPhospho [T1285]	THOC2 T1285	Cancer_only	-1.10	1.59	-0.57	0.28
Q12774 1xPhospho [S11]	ARHGEF5 S11	Cancer_only	1.82	1.31	-0.58	0.08

Q9H2Y7 [637-648]	ZNF106 637-648	Cancer_only	-2.25	1.55	-0.58	1.72
P20020 [1139-1151]	ATP2B1 1139-1151	Cancer_only	-1.38	1.44	-0.58	0.37
Q8WWM7 1xPhospho [S680]	ATXN2L S680	Cancer_only	-1.08	1.45	-0.58	1.18
Q92794 1xPhospho [S1113]	KAT6A S1113	Cancer_only	-1.97	1.73	-0.59	0.37
P15260 1xPhospho [T295]	IFNGR1 T295	Cancer_only	-1.86	1.50	-0.59	0.17
P37275 1xPhospho [S738]	ZEB1 S738	Cancer_only	1.07	3.09	-0.60	0.25
Q9P2R6 2xPhospho [S53;S56]	RERE S53;S56	Cancer_only	-1.11	1.66	-0.61	0.32
Q9NQS7 1xPhospho [T292]	INCENP T292	Cancer_only	-1.40	1.48	-0.61	0.13
Q16649 1xPhospho [S353]	NFIL3 S353	Cancer_only	1.05	1.35	-0.61	0.42
Q86SQ7 1xPhospho [S92]	SDCCAG8 S92	Cancer_only	1.57	1.51	-0.62	0.30
Q92576 1xPhospho [S1925]	PHF3 S1925	Cancer_only	-1.04	1.80	-0.63	0.98
Q6ZRV2 1xPhospho [S870];1xPhospho [S903]	FAM83H S870;S903	Cancer_only	-1.44	1.79	-0.63	0.51
O95297 1xPhospho [S219]	MPZL1 S219	Cancer_only	-1.85	1.38	-0.63	0.25
P33527 2xPhospho [S930;T931]	ABCC1 S930;T931	Cancer_only	-2.16	1.42	-0.64	0.36
O43493 1xPhospho [S71]	TGOLN2 S71	Cancer_only	-1.69	1.31	-0.64	0.37
Q13242 2xPhospho [S193;S195]	SRSF9 S193;S195	Cancer_only	-1.59	1.31	-0.64	0.51
Q9UNL2 1xPhospho [S105]	SSR3 S105	Cancer_only	-2.52	2.26	-0.65	0.23
O75376 2xPhospho [S158;S172]	NCOR1 S158;S172	Cancer_only	-2.21	1.47	-0.65	0.49
Q9Y2G1 1xPhospho [S736]	MYRF S736	Cancer_only	-1.26	1.52	-0.65	0.83
Q9BZG1 1xPhospho [S241]	RAB34 S241	Cancer_only	-1.08	2.00	-0.65	0.50
Q3KQU3 1xPhospho [S503]	MAP7D1 S503	Cancer_only	1.43	1.36	-0.66	0.27
Q8WWQ0 1xPhospho [S1315]	PHIP S1315	Cancer_only	-2.26	1.40	-0.66	0.34
Q9ULH0 1xPhospho [S1555]	KIDINS220 S1555	Cancer_only	-1.81	1.45	-0.66	0.34
Q86VM9 1xPhospho [S95]	ZC3H18 S95	Cancer_only	-2.18	1.72	-0.67	0.16
O15516 1xPhospho [T461]	CLOCK T461	Cancer_only	-1.05	1.60	-0.67	1.02
Q09666 1xPhospho [S4908]	AHNAK S4908	Cancer_only	-2.16	1.69	-0.67	0.82

Q9Y4G2 1xPhospho [S482]	PLEKHM1 S482	Cancer_only	-1.85	1.39	-0.69	0.09
Q14839 1xPhospho [S1576]	CHD4 S1576	Cancer_only	-1.18	1.72	-0.69	0.12
O43823 1xPhospho [S112]	AKAP8 S112	Cancer_only	-1.05	1.39	-0.70	0.86
Q9Y342 1xPhospho [S14]	PLLP S14	Cancer_only	-2.03	1.62	-0.70	1.03
Q14118 [882-895]	DAG1 882-895	Cancer_only	-1.10	1.54	-0.71	1.10
O60292 1xPhospho [S1534]	SIPA1L3 S1534	Cancer_only	-1.74	1.40	-0.72	0.28
Q5SWA1 1xPhospho [S508]	PPP1R15B S508	Cancer_only	-1.95	1.41	-0.72	0.38
P61081 1xPhospho [S23]	UBE2M S23	Cancer_only	-1.76	1.44	-0.73	0.21
Q15424 1xPhospho [S532]	SAFB S532	Cancer_only	-1.05	2.54	-0.73	0.26
O15042 2xPhospho [S788;S800]	U2SURP S788;S800	Cancer_only	-1.44	1.35	-0.74	0.95
P18206 1xPhospho [S346]	VCL S346	Cancer_only	1.50	1.46	-0.75	0.39
Q9H6S0 2xPhospho [S1089;S1090]	YTHDC2 S1089;S1090	Cancer_only	1.86	1.32	-0.75	0.80
Q3V6T2 [1016-1032]	CCDC88A 1016-1032	Cancer_only	-1.05	1.64	-0.76	2.06
P43307 1xPhospho [S284]	SSR1 S284	Cancer_only	-1.45	1.89	-0.76	1.14
Q9C0C9 1xPhospho [S87]	UBE2O S87	Cancer_only	-1.26	1.41	-0.76	0.95
Q9BQS8 [571-593]	FYCO1 571-593	Cancer_only	-1.67	1.66	-0.76	1.07
Q9HCG8 1xPhospho [S61]	CWC22 S61	Cancer_only	-1.43	1.37	-0.77	0.54
Q6P1J9 1xPhospho [S212]	CDC73 S212	Cancer_only	-1.05	1.36	-0.77	0.69
O95365 1xPhospho [S549]	ZBTB7A S549	Cancer_only	-1.74	1.92	-0.77	0.59
Q9BWN1 1xPhospho [S277]	PRR14 S277	Cancer_only	-1.36	1.74	-0.78	1.74
Q8WYP5 1xPhospho [S1160]	AHCTF1 S1160	Cancer_only	-1.38	1.69	-0.78	2.12
O95292 2xPhospho [S156;S/T]	VAPB S156;S/T	Cancer_only	-1.40	1.43	-0.79	0.60
Q8TEW0 1xPhospho [S1261]	PARD3 S1261	Cancer_only	1.39	2.15	-0.79	0.22
O14974 1xPhospho [S299]	PPP1R12A S299	Cancer_only	-1.45	1.85	-0.79	0.66
Q9BXK5 1xPhospho [S420]	BCL2L13 S420	Cancer_only	-1.01	1.82	-0.81	0.43
O95503 1xPhospho [S301]	CBX6 S301	Cancer_only	-1.01	2.40	-0.81	1.25

Q9BXK1 1xPhospho [S109]	KLF16 S109	Cancer_only	-1.16	1.41	-0.82	0.64
Q15942 1xPhospho [S143]	ZYX S143	Cancer_only	1.09	1.48	-0.82	0.45
Q9H7N4 1xPhospho [T849]	SCAF1 T849	Cancer_only	-1.38	1.63	-0.82	0.32
Q96T88 1xPhospho [S287]	UHRF1 S287	Cancer_only	-1.65	2.21	-0.82	0.45
Q03252 1xPhospho [T518]	LMNB2 T518	Cancer_only	-1.72	4.72	-0.83	0.71
Q08379 1xPhospho [S66]	GOLGA2 S66	Cancer_only	-2.46	1.76	-0.83	0.50
Q9NQX3 1xPhospho [S295]	GPHN S295	Cancer_only	1.12	1.46	-0.83	0.56
O15061 1xPhospho [S1181]	SYNM S1181	Cancer_only	-1.83	1.78	-0.83	0.63
Q9NQS3 1xPhospho [S465]	PVRL3 S465	Cancer_only	-1.05	1.44	-0.84	0.24
Q15758 1xPhospho [S503]	SLC1A5 S503	Cancer_only	-2.36	1.81	-0.85	0.26
Q15464 [238-253]	SHB 238-253	Cancer_only	-2.18	3.55	-0.86	0.71
Q7L2J0 1xPhospho [S254]	MEPCE S254	Cancer_only	-1.14	1.55	-0.86	0.51
P29317 2xPhospho [S901;S/T]	EPHA2 S901;S/T	Cancer_only	-2.02	1.39	-0.86	0.73
Q6W2J9 1xPhospho [S423]	BCOR S423	Cancer_only	-1.49	1.33	-0.86	0.72
O43933 1xPhospho [S354]	PEX1 S354	Cancer_only	-1.27	1.41	-0.87	1.41
Q16666 1xPhospho [S106]	IFI16 S106	Cancer_only	-1.13	2.17	-0.88	1.58
Q96CW5 1xPhospho [S515]	TUBGCP3 S515	Cancer_only	1.81	1.46	-0.88	0.45
Q8NI27 1xPhospho [S1364]	THOC2 S1364	Cancer_only	-1.72	1.89	-0.89	0.29
O00257 1xPhospho [S415]	CBX4 S415	Cancer_only	-2.68	1.51	-0.89	0.64
O96028 [405-425]	WHSC1 405-425	Cancer_only	-2.35	1.56	-0.90	0.96
O75533 1xPhospho [T426]	SF3B1 T426	Cancer_only	-1.41	1.92	-0.92	0.43
Q9BZG1 2xPhospho [S241;S244]	RAB34 S241;S244	Cancer_only	-2.28	1.65	-0.92	0.79
Q86YP4 1xPhospho [T189]	GATAD2A T189	Cancer_only	-1.29	1.32	-0.92	1.23
O43402 1xPhospho [S173]	EMC8 S173	Cancer_only	-1.74	2.82	-0.93	0.19
O96028 1xPhospho [T110]	WHSC1 T110	Cancer_only	-1.32	1.96	-0.94	1.69
Q8N5F7 1xPhospho [S262]	NKAP S262	Cancer_only	-1.68	1.65	-0.95	0.26

Q8TBE0 1xPhospho [S184]	BAHD1 S184	Cancer_only	-1.93	1.40	-0.95	2.05
O00287 1xPhospho [S132]	RFXAP S132	Cancer_only	-1.66	2.12	-0.95	0.31
P54132 [324-339]	BLM 324-339	Cancer_only	-4.52	1.60	-0.96	0.44
Q68DK7 1xPhospho [T386]	MSL1 T386	Cancer_only	-1.72	1.87	-0.96	0.47
O75369 1xPhospho [S1505]	FLNB S1505	Cancer_only	-1.44	2.42	-0.96	0.46
P22626 1xPhospho [S259]	HNRNPA2B1 S259	Cancer_only	-1.00	1.49	-0.97	0.46
O43166 1xPhospho [S1181]	SIPA1L1 S1181	Cancer_only	-1.18	1.58	-0.99	0.55
Q9UKK3 1xPhospho [T101]	PARP4 T101	Cancer_only	-1.15	1.96	-0.99	0.58
Q14BN4 1xPhospho [S452]	SLMAP S452	Cancer_only	-1.46	1.32	-0.99	0.47
O43166 1xPhospho [S1433]	SIPA1L1 S1433	Cancer_only	-1.48	2.32	-1.00	0.88
Q9Y6I9 1xPhospho [S244]	TEX264 S244	CAF_only	-0.66	0.75	-1.00	1.56
O60716 2xPhospho [S288;S300]	CTNND1 S288;S300	Cancer_only	-2.29	1.45	-1.01	0.58
P48634 1xPhospho [T1347]	PRRC2A T1347	CAF_only	-1.00	0.35	-1.01	1.39
Q9BTA9 2xPhospho [S62;S64]	WAC S62;S64	CAF_only	-0.73	0.52	-1.01	1.78
Q13442 1xPhospho [S19]	PDAP1 S19	CAF_only	-1.45	0.93	-1.01	1.44
Q6ZMY3 1xPhospho [S838]	SPOCD1 S838	CAF_only	-1.08	0.63	-1.02	1.34
Q03001 1xPhospho [S7239]	DST S7239	Cancer_only	-1.67	1.36	-1.02	0.64
Q02818 1xPhospho [T335]	NUCB1 T335	CAF_only	-1.03	0.85	-1.02	1.37
P49327 2xPhospho [S2198;T2204]	FASN S2198;T2204	CAF_only	0.07	0.44	-1.03	1.32
P78549 1xPhospho [S53]	NTHL1 S53	CAF_only	-0.02	0.01	-1.04	2.12
Q5VT06 1xPhospho [S567]	CEP350 S567	CAF_only	-0.02	0.01	-1.04	2.12
Q16600 [187-199]	ZNF239 187-199	CAF_only	-0.19	0.58	-1.04	1.81
Q8WWQ0 1xPhospho [S1243]	PHIP S1243	CAF_only	-0.58	0.27	-1.04	1.41
Q15596 1xPhospho [S29]	NCOA2 S29	CAF_only	-0.68	0.61	-1.04	1.53
Q9UKV3 1xPhospho [S710]	ACIN1 S710	Cancer_only	-1.76	1.57	-1.04	1.22
P02545 1xPhospho [S423]	LMNA S423	CAF_only	-1.81	0.72	-1.04	2.87

P04626 1xPhospho [T701]	ERBB2 T701	Cancer_only	-1.91	1.39	-1.04	0.60
Q9UHB7 1xPhospho [S814]	AFF4 S814	CAF_only	-1.04	0.79	-1.05	1.41
Q13480 1xPhospho [S645]	GAB1 S645	Cancer_only	-1.80	1.54	-1.05	0.13
Q13017 1xPhospho [S951]	ARHGAP5 S951	CAF_only	-0.30	0.20	-1.06	1.89
Q9Y3S1 1xPhospho [S560]	WNK2 S560	CAF_only	-0.10	0.18	-1.06	1.55
Q9UQ35 2xPhospho [S2702;S2706]	SRRM2 S2702;S2706	Cancer_only	-1.44	1.86	-1.06	0.85
Q96CW1 1xPhospho [S236]	AP2M1 S236	Cancer_only	-1.56	2.14	-1.07	0.55
Q8ND76 1xPhospho [S336]	CCNY S336	CAF_only	-0.77	0.79	-1.07	1.81
P04035 1xPhospho [S384]	HMGCR S384	Cancer_only	-2.15	1.55	-1.07	0.24
Q9BXS6 1xPhospho [S352]	NUSAP1 S352	CAF_only	-0.39	0.85	-1.07	1.52
O00712 [262-270]	NFIB 262-270	CAF_only	-0.92	0.65	-1.07	2.99
Q12906 1xPhospho [S73]	ILF3 S73	Cancer_only	-1.98	1.58	-1.07	0.33
Q12792 1xPhospho [S143]	TWF1 S143	Cancer_only	-1.80	2.36	-1.08	0.70
Q7Z3B3 1xPhospho [S827]	KANSL1 S827	CAF_only	1.19	0.80	-1.08	1.90
P42696 2xPhospho [S14;S28]	RBM34 S14;S28	Cancer_only	-2.34	2.28	-1.08	0.34
Q8NFA0 1xPhospho [T1326]	USP32 T1326	CAF_only	0.37	0.22	-1.08	1.42
P46013 1xPhospho [S1253]	MKI67 S1253	Cancer_only	-2.36	2.22	-1.08	0.69
Q5SYE7 2xPhospho [S1467;S1472]	NHSL1 S1467;S1472	CAF_only	1.07	1.09	-1.09	2.15
Q96K58 1xPhospho [S10]	ZNF668 S10	Cancer_only	-1.18	1.96	-1.09	0.41
Q9UIG0 1xPhospho [S423]	BAZ1B S423	Cancer_only	-1.51	1.65	-1.09	0.38
Q659C4 1xPhospho [S340]	LARP1B S340	Cancer_only	-1.53	2.49	-1.09	0.67
P55196 1xPhospho [S1512]	MLLT4 S1512	Cancer_only	-1.23	2.26	-1.10	0.71
P41227 [184-195]	NAA10 184-195	CAF_only	-0.13	0.19	-1.10	1.31
P31629 1xPhospho [S819]	HIVEP2 S819	Cancer_only	2.31	1.67	-1.10	0.79
Q96SK2 1xPhospho [S267]	TMEM209 S267	Cancer_and_CAF	-1.17	1.45	-1.11	1.42
P13637 1xPhospho [S10]	ATP1A3 S10	CAF_only	-2.33	1.12	-1.11	1.39

Q8N2M8 1xPhospho [S547]	CLASRP S547	CAF_only	-1.12	0.52	-1.11	1.57
Q14980 1xPhospho [S1145]	NUMA1 S1145	CAF_only	-0.58	0.27	-1.11	1.74
P08670 2xPhospho [S39;S42]	VIM S39;S42	CAF_only	-1.09	0.32	-1.11	1.34
Q02952 1xPhospho [S483]	AKAP12 S483	CAF_only	-1.25	0.69	-1.11	2.69
Q9BYN0 1xPhospho [S32]	SRXN1 S32	CAF_only	-1.53	0.77	-1.12	1.73
Q13247 2xPhospho [S190;S192]	SRSF6 S190;S192	Cancer_only	-1.48	1.80	-1.12	0.87
Q86UP2 1xPhospho [T153]	KTN1 T153	Cancer_only	-1.52	1.60	-1.12	0.41
P07237 1xPhospho [S88]	P4HB S88	CAF_only	-0.18	1.08	-1.12	1.76
P21675 [290-320]	TAF1 290-320	Cancer_only	1.18	1.48	-1.12	0.53
Q9UL54 1xPhospho [S9]	TAOK2 S9	Cancer_only	-1.87	1.35	-1.12	0.26
Q7Z417 1xPhospho [S376]	NUFIP2 S376	CAF_only	-2.84	0.71	-1.13	1.33
Q9P266 2xPhospho [S371;S375]	KIAA1462 S371;S375	CAF_only	0.17	0.04	-1.13	1.77
Q5VWG9 1xPhospho [T433]	TAF3 T433	Cancer_only	-1.16	1.38	-1.13	0.52
P07199 1xPhospho [S156]	CENPB S156	Cancer_only	-1.31	2.16	-1.13	0.43
P18858 1xPhospho [T195]	LIG1 T195	CAF_only	0.23	0.19	-1.14	1.64
P11413 1xPhospho [Y503]	G6PD Y503	Cancer_only	1.26	1.33	-1.14	0.76
Q96T58 2xPhospho [S2481;S2493]	SPEN S2481;S2493	CAF_only	-0.79	0.38	-1.14	1.36
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [T2296]	MAP1A T2296	Cancer_only	2.07	1.42	-1.14	0.26
P78559 1xPhospho [T2058]	MAP1A T2058	Cancer_only	2.07	1.42	-1.14	0.26
P51003 2xPhospho [S537;S/T]	PAPOLA S537;S/T	CAF_only	2.05	0.77	-1.14	1.53
P30622 1xPhospho [T182]	CLIP1 T182	CAF_only	0.12	0.29	-1.14	1.70
Q8NAP3 1xPhospho [S297]	ZBTB38 S297	CAF_only	-0.59	0.85	-1.14	1.94
Q86VP1 1xPhospho [S124]	TAX1BP1 S124	CAF_only	-0.66	0.43	-1.14	1.54
Q9P035 1xPhospho [S135]	HACD3 S135	CAF_only	-1.70	0.91	-1.15	1.68
Q01105 1xPhospho [S7]	SET S7	CAF_only	0.05	0.33	-1.15	2.02

Q9UQ35 1xPhospho [S1164]	SRRM2 S1164	Cancer_only	-1.92	2.72	-1.15	0.63
Q9ULW0 1xPhospho [S654]	TPX2 S654	CAF_only	-0.30	0.26	-1.15	2.16
Q6Y7W6 2xPhospho [S26;S30]	GIGYF2 S26;S30	CAF_only	-1.18	0.43	-1.15	1.59
Q15836 1xPhospho [S44]	VAMP3 S44	Cancer_only	-1.92	1.37	-1.15	0.68
O75475 2xPhospho [T122;T/S]	PSIP1 T122;T/S	Cancer_only	-1.15	1.39	-1.16	0.50
Q12789 1xPhospho [S1865]	GTF3C1 S1865	CAF_only	-2.15	0.94	-1.16	2.00
Q12888 1xPhospho [S993]	TP53BP1 S993	CAF_only	-0.67	2.10	-1.16	1.36
Q8IW35 2xPhospho [S770;S/Y/T]	CEP97 S770;S/Y/T	Cancer_only	2.51	1.55	-1.17	0.14
Q92597 2xPhospho [T328;S330]	NDRG1 T328;S330	Cancer_only	-1.13	2.41	-1.17	0.45
Q09666 1xPhospho [S4850]	AHNAK S4850	CAF_only	-1.98	0.54	-1.17	1.58
Q9UMN6 1xPhospho [S493]	KMT2B S493	CAF_only	-1.50	1.27	-1.17	1.49
Q9UNK9 [30-50]	ANGEL1 30-50	Cancer_and_CAF	-1.97	1.91	-1.17	1.38
Q15695 1xPhospho [S389]	ZRSR1 S389	Cancer_only	-1.45	1.58	-1.18	0.41
P46940 1xPhospho [S1443]	IQGAP1 S1443	Cancer_only	-1.66	1.33	-1.18	0.36
Q14676 1xPhospho [T1444]	MDC1 T1444	Cancer_only	-1.06	1.56	-1.18	0.54
P57086 1xPhospho [S51]	SCAND1 S51	Cancer_only	2.14	1.67	-1.19	0.54
O00308 1xPhospho [S211]	WWP2 S211	CAF_only	-0.97	0.70	-1.19	1.91
Q86UE4 1xPhospho [S308]	MTDH S308	CAF_only	-1.61	0.45	-1.19	1.67
Q15464 [91-104]	SHB 91-104	CAF_only	0.20	0.23	-1.19	1.63
Q9Y666 2xPhospho [S50;S62]	SLC12A7 S50;S62	CAF_only	-3.09	1.08	-1.19	2.41
P17252 1xPhospho [S319]	PRKCA S319	CAF_only	-0.60	0.48	-1.19	1.76
O15446 1xPhospho [S285]	CD3EAP S285	Cancer_only	-1.87	1.33	-1.19	0.62
Q5HYI7 1xPhospho [S249]	MTX3 S249	Cancer_only	-1.39	1.58	-1.19	0.45
P04920 1xPhospho [S243]	SLC4A2 S243	CAF_only	-0.37	0.13	-1.20	1.32
O60271 1xPhospho [S332]	SPAG9 S332	CAF_only	0.57	0.78	-1.21	1.91
Q13153 2xPhospho [T219;S220]	PAK1 T219;S220	CAF_only	-1.08	0.85	-1.21	1.42

Q86VM9 1xPhospho [S118]	ZC3H18 S118	Cancer_and_CAF	-2.19	1.46	-1.22	1.83
P21796 1xPhospho [S104]	VDAC1 S104	CAF_only	-0.89	0.15	-1.22	1.50
P29323 1xPhospho [S776]	EPHB2 S776	CAF_only	-2.25	1.16	-1.22	1.39
Q9H0E9 2xPhospho [S637;S641]	BRD8 S637;S641	Cancer_only	1.29	2.03	-1.22	0.61
Q7Z6E9 1xPhospho [T1066]	RBBP6 T1066	Cancer_only	-1.58	1.45	-1.22	0.95
Q13330 1xPhospho [S522]	MTA1 S522	Cancer_only	-1.77	1.36	-1.22	0.50
P26358 1xPhospho [S143]	DNMT1 S143	CAF_only	-0.67	1.31	-1.23	2.54
Q9NZV5 1xPhospho [S13]	SEPN1 S13	Cancer_only	-1.38	1.45	-1.23	0.69
Q96DF8 1xPhospho [S395]	DGCR14 S395	Cancer_only	-1.21	1.51	-1.24	0.90
O14610 1xPhospho [S6]	GNGT2 S6	CAF_only	-1.19	0.20	-1.24	1.32
Q9H4G0 1xPhospho [S407]	EPB41L1 S407	Cancer_only	-1.26	1.83	-1.24	0.28
P57060 1xPhospho [S173]	RWDD2B S173	CAF_only	-0.11	0.04	-1.24	1.40
Q86XP1 1xPhospho [S56]	DGKH S56	CAF_only	-0.99	0.41	-1.24	1.43
Q5T4S7 1xPhospho [T905]	UBR4 T905	CAF_only	0.62	0.18	-1.24	1.77
Q9C0D7 1xPhospho [S469]	ZC3H12C S469	Cancer_only	-1.83	2.15	-1.25	0.61
P46821 1xPhospho [S2072]	MAP1B S2072	CAF_only	0.31	0.31	-1.25	1.94
Q15311 2xPhospho [S29;S34]	RALBP1 S29;S34	Cancer_and_CAF	1.80	2.15	-1.25	1.58
O00399 1xPhospho [T186]	DCTN6 T186	CAF_only	0.60	0.42	-1.25	1.82
Q5UIP0 1xPhospho [S1157]	RIF1 S1157	CAF_only	-0.16	0.06	-1.25	1.47
P15822 2xPhospho [S1293;S1297]	HIVEP1 S1293;S1297	Cancer_only	-1.85	2.12	-1.26	0.22
Q8IWI9 1xPhospho [S1905]	MGA S1905	CAF_only	-1.83	0.76	-1.26	1.38
P78345 1xPhospho [S235]	RPP38 S235	Cancer_only	-2.48	2.67	-1.27	0.76
Q3L8U1 1xPhospho [S2079]	CHD9 S2079	CAF_only	-1.10	1.04	-1.27	2.55
Q9Y2Y8 1xPhospho [S104]	PRG3 S104	CAF_only	-3.38	0.31	-1.27	1.40
Q96BY7 1xPhospho [S1743]	ATG2B S1743	CAF_only	-0.80	0.71	-1.27	1.41
A1L390 1xPhospho [S827]	PLEKHG3 S827	CAF_only	-1.59	0.64	-1.28	1.42

O43290 1xPhospho [S448]	SART1 S448	CAF_only	-0.92	0.63	-1.28	1.35
Q92888 1xPhospho [S863]	ARHGEF1 S863	CAF_only	-0.94	0.57	-1.28	2.15
Q9NYB9 1xPhospho [S216]	ABI2 S216	CAF_only	-1.84	0.92	-1.28	1.37
Q8NEL9 1xPhospho [S224]	DDHD1 S224	CAF_only	0.71	1.29	-1.29	1.87
P55265 1xPhospho [S825]	ADAR S825	CAF_only	-2.10	1.13	-1.29	2.29
O96028 1xPhospho [T544]	WHSC1 T544	CAF_only	-1.08	1.02	-1.29	1.38
P22392 1xPhospho [Y52]	NME2 Y52	CAF_only	-0.31	0.30	-1.29	1.41
Q641Q2 1xPhospho [S498]	FAM21A S498	Cancer_only	-1.03	1.56	-1.30	1.04
Q9Y4E1 1xPhospho [S498]	FAM21C S498	Cancer_only	-1.03	1.56	-1.30	1.04
Q5VUA4 1xPhospho [S1896]	ZNF318 S1896	CAF_only	-1.08	0.49	-1.30	1.97
Q9H2G2 1xPhospho [S330]	SLK S330	CAF_only	-1.85	0.54	-1.30	1.68
Q9Y2W1 1xPhospho [S253]	THRAP3 S253	CAF_only	-0.89	1.14	-1.30	1.31
P15408 1xPhospho [S230]	FOSL2 S230	Cancer_only	-1.70	1.33	-1.31	0.53
Q14151 1xPhospho [T201]	SAFB2 T201	CAF_only	-0.86	0.20	-1.31	2.10
O43493 1xPhospho [S337]	TGOLN2 S337	CAF_only	-1.77	0.48	-1.32	1.40
Q99590 2xPhospho [S816;S818]	SCAF11 S816;S818	Cancer_only	-1.84	1.31	-1.32	0.46
Q6PJG2 1xPhospho [S461]	ELMSAN1 S461	Cancer_and_CAF	-2.29	2.27	-1.33	1.32
Q6IQ49 1xPhospho [S278]	SDE2 S278	CAF_only	-1.20	0.49	-1.33	2.36
P09651 1xPhospho [S360]	HNRNPA1 S360	Cancer_only	-1.32	1.99	-1.33	0.89
Q13625 1xPhospho [S121]	TP53BP2 S121	CAF_only	-1.29	0.55	-1.33	1.33
Q13322 1xPhospho [S104]	GRB10 S104	CAF_only	0.04	0.01	-1.33	1.75
P84243 1xPhospho [T81]	H3F3A T81	Cancer_only	-1.84	1.68	-1.34	0.41
Q16695 1xPhospho [T81]	HIST3H3 T81	Cancer_only	-1.84	1.68	-1.34	0.41
O60701 1xPhospho [T91]	UGDH T91	CAF_only	-0.15	0.14	-1.34	1.42
Q99618 1xPhospho [S209]	CDCA3 S209	CAF_only	-0.55	0.43	-1.34	1.38
Q5FWF5 1xPhospho [S412]	ESCO1 S412	CAF_only	-0.56	0.77	-1.34	1.82

Q96NE9 1xPhospho [S352]	FRMD6 S352	Cancer_only	-2.71	1.55	-1.34	0.41
P56211 1xPhospho [S23]	ARPP19 S23	Cancer_only	1.35	1.98	-1.34	0.76
O60216 1xPhospho [S153]	RAD21 S153	Cancer_only	-2.71	1.39	-1.34	0.74
P17480 1xPhospho [S389]	UBTF S389	CAF_only	-0.94	0.93	-1.35	1.70
O43399 1xPhospho [S21]	TPD52L2 S21	CAF_only	-0.39	0.20	-1.36	3.65
P67809 1xPhospho [S176]	YBX1 S176	CAF_only	-0.73	0.14	-1.36	3.27
Q99569 1xPhospho [S290]	PKP4 S290	CAF_only	0.97	2.14	-1.36	1.79
O95983 1xPhospho [S85]	MBD3 S85	Cancer_only	-2.77	1.69	-1.36	0.73
Q8WUA4 1xPhospho [S901]	GTF3C2 S901	Cancer_only	-2.15	2.30	-1.36	0.35
Q86V48 1xPhospho [S233]	LUZP1 S233	CAF_only	-3.89	1.11	-1.37	1.44
Q6KC79 1xPhospho [T724]	NIPBL T724	CAF_only	-1.01	0.59	-1.37	1.36
Q641Q2 2xPhospho [S697;S700]	FAM21A S697;S700	CAF_only	0.12	0.05	-1.37	1.55
Q9Y4E1 2xPhospho [S697;S700]	FAM21C S697;S700	CAF_only	0.12	0.05	-1.37	1.55
P09651 1xPhospho [S199]	HNRNPA1 S199	Cancer_only	-1.41	2.37	-1.38	0.79
Q9P2G1 1xPhospho [S1058]	ANKIB1 S1058	CAF_only	1.02	0.67	-1.38	1.43
Q9P260 1xPhospho [S244]	KIAA1468 S244	CAF_only	0.33	0.44	-1.38	1.34
Q6MZP7 1xPhospho [S635]	LIN54 S635	Cancer_only	-1.06	1.75	-1.38	0.68
Q13416 1xPhospho [T226]	ORC2 T226	Cancer_only	-1.13	2.12	-1.38	0.78
Q8IYH5 1xPhospho [S113]	ZZZ3 S113	CAF_only	-0.94	0.38	-1.38	1.81
Q9H6E5 1xPhospho [T329]	TUT1 T329	CAF_only	-0.72	0.47	-1.38	2.55
Q9C0C9 2xPhospho [T838;S839]	UBE2O T838;S839	CAF_only	-0.86	0.56	-1.39	1.91
Q7Z422 1xPhospho [S107]	SZRD1 S107	CAF_only	-0.21	0.36	-1.39	1.35
Q9Y320 1xPhospho [S211]	TMX2 S211	CAF_only	-0.07	0.07	-1.40	2.39
Q7Z3B3 1xPhospho [S249]	KANSL1 S249	Cancer_only	-2.38	1.45	-1.40	1.23
Q8TD16 1xPhospho [S190]	BICD2 S190	CAF_only	-0.02	0.04	-1.40	1.38
P10301 1xPhospho [S201]	RRAS S201	Cancer_only	-2.55	1.46	-1.41	0.85

Q8WYP5 1xPhospho [S1295]	AHCTF1 S1295	CAF_only	-1.62	0.79	-1.41	1.30
Q15149 1xPhospho [S1721]	PLEC S1721	CAF_only	-1.53	0.37	-1.41	1.34
P46821 2xPhospho [S2209;S2211]	MAP1B S2209;S2211	CAF_only	-0.71	0.43	-1.41	1.55
Q7L590 1xPhospho [S644]	MCM10 S644	Cancer_only	-1.70	1.91	-1.42	1.16
Q567U6 1xPhospho [S305]	CCDC93 S305	CAF_only	0.29	0.40	-1.42	1.62
Q5EBL4 1xPhospho [S346]	RILPL1 S346	CAF_only	-0.22	0.22	-1.43	1.89
Q8WZ64 1xPhospho [S147]	ARAP2 S147	Cancer_only	-1.39	2.30	-1.43	0.76
Q96H22 1xPhospho [S226]	CENPN S226	Cancer_only	-2.51	1.81	-1.43	0.61
Q5JRA6 1xPhospho [S298]	MIA3 S298	Cancer_only	-1.40	1.37	-1.43	1.15
P46013 1xPhospho [T1719]	MKI67 T1719	CAF_only	0.23	0.17	-1.43	1.65
Q6PKG0 1xPhospho [S215]	LARP1 S215	CAF_only	-0.76	0.75	-1.43	1.68
Q9BTX1 2xPhospho [S406;T414]	NDC1 S406;T414	Cancer_only	-1.03	2.46	-1.44	0.57
Q9BVJ6 1xPhospho [T205]	UTP14A T205	Cancer_only	-1.49	1.55	-1.45	0.92
Q9UM00 1xPhospho [S239]	TMCO1 S239	Cancer_only	-1.12	1.60	-1.45	0.60
Q13206 1xPhospho [S7]	DDX10 S7	Cancer_and_CAF	-2.41	1.64	-1.45	2.72
Q9UKE5 1xPhospho [S688]	TNIK S688	CAF_only	-0.41	0.41	-1.45	1.33
Q5VUA4 1xPhospho [S709]	ZNF318 S709	CAF_only	-1.37	1.21	-1.45	1.37
Q8WYP5 [1287-1300]	AHCTF1 1287-1300	CAF_only	-1.07	1.00	-1.45	1.37
Q03188 1xPhospho [S600]	CENPC S600	CAF_only	-1.03	0.61	-1.45	1.66
Q8IZ21 [508-541]	PHACTR4 508-541	Cancer_only	1.45	1.44	-1.45	1.01
Q08209 1xPhospho [S462]	PPP3CA S462	CAF_only	-0.12	0.05	-1.45	1.48
P84243 1xPhospho [T59]	H3F3A T59	Cancer_only	-2.70	1.57	-1.45	0.78
Q16695 1xPhospho [T59]	HIST3H3 T59	Cancer_only	-2.70	1.57	-1.45	0.78
Q5QJE6 1xPhospho [S117]	DNTTIP2 S117	CAF_only	-1.87	1.02	-1.46	1.43
Q9P265 1xPhospho [S53]	DIP2B S53	CAF_only	-0.12	0.19	-1.46	1.45
Q9H9J4 2xPhospho [S1219;S1226]	USP42 S1219;S1226	Cancer_only	-1.26	1.46	-1.46	0.65

Q9UPZ3 1xPhospho [S563]	HPS5 S563	CAF_only	-0.52	0.77	-1.46	1.47
O14558 1xPhospho [S16]	HSPB6 S16	Cancer_only	-1.05	1.75	-1.47	0.29
O95347 1xPhospho [S60]	SMC2 S60	CAF_only	0.92	0.41	-1.47	1.91
P0C1Z6 1xPhospho [T207]	TFPT T207	Cancer_only	-1.07	1.32	-1.47	0.79
Q13415 1xPhospho [T337]	ORC1 T337	CAF_only	-0.24	1.32	-1.47	2.77
Q96HN2 1xPhospho [S107]	AHCYL2 S107	Cancer_and_CAF	-2.24	1.34	-1.48	2.08
O95239 1xPhospho [S815]	KIF4A S815	CAF_only	-1.21	0.62	-1.49	1.84
Q96GF1 1xPhospho [T106]	RNF185 T106	Cancer_only	-1.60	2.18	-1.49	0.51
Q8NFC6 1xPhospho [S2954]	BOD1L1 S2954	Cancer_and_CAF	-1.80	1.64	-1.49	1.44
Q5JXC2 1xPhospho [S303]	MIIP S303	Cancer_only	-1.94	1.88	-1.50	0.48
Q9BYG3 1xPhospho [S218]	NIFK S218	CAF_only	-1.20	0.73	-1.50	1.57
Q9NVE7 1xPhospho [S63]	PANK4 S63	CAF_only	-0.35	0.17	-1.50	2.73
Q8NHG8 1xPhospho [S82]	ZNRF2 S82	Cancer_only	-1.41	1.65	-1.51	0.44
Q12888 1xPhospho [S208]	TP53BP1 S208	CAF_only	-1.12	0.78	-1.51	1.41
Q9C0C2 1xPhospho [S1715]	TNKS1BP1 S1715	CAF_only	-1.15	0.36	-1.51	1.93
Q8WVV9 1xPhospho [S68]	HNRNPLL S68	CAF_only	-0.64	1.16	-1.51	1.73
P54274 1xPhospho [S435]	TERF1 S435	CAF_only	-1.83	1.27	-1.51	1.44
Q8NCD3 1xPhospho [S642]	HJURP S642	Cancer_only	-2.05	1.85	-1.52	0.59
Q7Z6E9 1xPhospho [S1509]	RBBP6 S1509	Cancer_and_CAF	-2.03	1.95	-1.52	1.46
Q7Z442 1xPhospho [S2450]	PKD1L2 S2450	CAF_only	-0.66	0.87	-1.52	1.48
Q13177 1xPhospho [S152]	PAK2 S152	CAF_only	-1.31	0.63	-1.52	1.79
Q16799 1xPhospho [T300]	RTN1 T300	CAF_only	-0.77	0.46	-1.52	2.32
Q96KM6 1xPhospho [T318]	ZNF512B T318	CAF_only	-0.48	0.26	-1.53	1.33
P49756 2xPhospho [S677;S683]	RBM25 S677;S683	CAF_only	-0.41	0.22	-1.53	1.63
P42166 1xPhospho [S424]	TMPO S424	CAF_only	-0.77	0.51	-1.54	1.49
P01213 2xPhospho [S125;T/S]	PDYN S125;T/S	Cancer_only	-1.22	1.53	-1.55	1.01

Q86XL3 1xPhospho [S662]	ANKLE2 S662	CAF_only	-1.28	1.13	-1.56	1.67
Q8IWC1 1xPhospho [S441]	MAP7D3 S441	Cancer_only	-1.49	2.50	-1.56	0.69
Q9P265 1xPhospho [S100]	DIP2B S100	CAF_only	0.09	0.03	-1.56	1.88
Q7Z5J4 1xPhospho [S1551]	RAI1 S1551	Cancer_only	-2.14	1.74	-1.57	0.47
P02545 1xPhospho [S22]	LMNA S22	Cancer_only	-2.15	2.16	-1.57	0.78
Q15545 1xPhospho [S213]	TAF7 S213	CAF_only	-1.59	0.45	-1.57	4.27
Q7Z2W4 1xPhospho [T393]	ZC3HAV1 T393	CAF_only	-0.55	0.17	-1.58	1.73
P49792 1xPhospho [S1613];1xPhospho [S1672];1xPhospho [S1731]	RANBP2 S1613;S1672;S1731	Cancer_and_CAF	-2.01	1.54	-1.58	1.58
Q13501 2xPhospho [S272;S275]	SQSTM1 S272;S275	Cancer_only	-1.67	2.20	-1.58	1.08
Q15643 1xPhospho [S1341]	TRIP11 S1341	Cancer_only	-1.61	1.46	-1.59	0.55
P49792 1xPhospho [S1400]	RANBP2 S1400	CAF_only	-2.19	0.60	-1.59	1.91
Q14653 1xPhospho [S175]	IRF3 S175	Cancer_only	-1.27	1.37	-1.59	0.34
Q15058 1xPhospho [S1292]	KIF14 S1292	Cancer_only	-1.50	1.42	-1.60	0.67
Q99590 2xPhospho [S771;S776]	SCAF11 S771;S776	CAF_only	-1.70	1.11	-1.60	1.32
P49454 1xPhospho [S821]	CENPF S821	CAF_only	-1.92	0.98	-1.60	1.42
Q5THJ4 1xPhospho [S2692]	VPS13D S2692	CAF_only	-1.28	0.80	-1.60	1.55
Q9BWH6 1xPhospho [S72]	RPAP1 S72	CAF_only	0.27	0.20	-1.60	2.40
Q96GX5 1xPhospho [S598]	MASTL S598	CAF_only	-1.62	0.63	-1.61	2.40
Q9HC35 1xPhospho [S176]	EML4 S176	CAF_only	-0.99	0.51	-1.61	2.03
P24534 1xPhospho [S141]	EEF1B2 S141	CAF_only	-2.48	0.66	-1.61	1.47
P45880 1xPhospho [S115]	VDAC2 S115	CAF_only	-0.94	0.31	-1.61	1.37
Q9NUQ6 1xPhospho [S455]	SPATS2L S455	Cancer_and_CAF	1.77	1.53	-1.61	3.13
Q8WUX9 1xPhospho [S417]	CHMP7 S417	CAF_only	-0.88	0.49	-1.61	1.56
Q7Z4V5 1xPhospho [S454]	HDGFRP2 S454	Cancer_only	-2.67	1.45	-1.61	0.64
Q8IWZ3 2xPhospho [S95;S101]	ANKHD1 S95;S101	CAF_only	0.34	0.69	-1.62	1.77
Q9H6B1 1xPhospho [S180]	ZNF385D S180	Cancer_only	-1.44	1.32	-1.62	0.91

Q15303 1xPhospho [S997]	ERBB4 S997	CAF_only	-1.36	0.29	-1.63	3.51
Q8N488 1xPhospho [S99]	RYBP S99	Cancer_only	-1.76	1.57	-1.63	0.62
Q9BTU6 1xPhospho [S462]	PI4K2A S462	Cancer_only	-1.80	1.67	-1.63	0.78
P28290 2xPhospho [S153;S156]	SSFA2 S153;S156	Cancer_only	-3.32	1.78	-1.63	0.18
O15027 1xPhospho [S569]	SEC16A S569	CAF_only	-0.66	0.49	-1.63	1.44
Q9BX95 1xPhospho [S101]	SGPP1 S101	CAF_only	-1.48	1.29	-1.63	1.63
P09234 1xPhospho [S17]	SNRPC S17	CAF_only	-0.56	0.47	-1.64	1.82
Q99442 1xPhospho [S307]	SEC62 S307	CAF_only	-4.08	0.66	-1.65	1.31
Q9NXL2 [308-318]	ARHGEF38 308-318	CAF_only	-0.73	0.23	-1.65	1.83
Q9H900 1xPhospho [T85]	ZWILCH T85	Cancer_only	1.10	1.40	-1.65	0.53
Q9UPN3 1xPhospho [S4521]	MACF1 S4521	CAF_only	-2.45	0.58	-1.66	2.20
Q96DT6 1xPhospho [S160]	ATG4C S160	CAF_only	0.36	0.16	-1.66	1.85
O60271 1xPhospho [S109]	SPAG9 S109	Cancer_and_CAF	1.09	2.95	-1.66	1.71
Q5VT25 1xPhospho [S750]	CDC42BPA S750	Cancer_only	-1.90	1.33	-1.66	0.88
Q05D32 1xPhospho [S28]	CTDSPL2 S28	Cancer_only	-1.66	1.66	-1.67	0.76
O43583 1xPhospho [S189]	DENR S189	CAF_only	1.32	0.46	-1.67	1.89
Q15652 1xPhospho [S1228]	JMJD1C S1228	CAF_only	0.76	0.18	-1.68	1.50
Q9NPI1 2xPhospho [S279;S289]	BRD7 S279;S289	CAF_only	-1.52	0.48	-1.69	2.39
P98198 2xPhospho [S1170;S1175]	ATP8B2 S1170;S1175	CAF_only	-0.07	0.01	-1.69	1.52
Q5BJF6 2xPhospho [T92;S96]	ODF2 T92;S96	Cancer_only	-2.15	1.44	-1.70	0.40
Q9HB58 2xPhospho [S256;T271]	SP110 S256;T271	CAF_only	-1.27	0.70	-1.70	1.87
P42695 2xPhospho [S530;S531]	NCAPD3 S530;S531	CAF_only	0.09	0.05	-1.70	3.17
P49454 2xPhospho [S3079;S3083]	CENPF S3079;S3083	CAF_only	-0.13	0.08	-1.72	2.28
Q6NUQ4 1xPhospho [T97]	TMEM214 T97	Cancer_and_CAF	-1.91	1.59	-1.72	1.78
Q9H3P2 2xPhospho [S225;S233]	NELFA S225;S233	CAF_only	-0.38	1.13	-1.72	1.77
P78316 1xPhospho [S96]	NOP14 S96	Cancer_only	-1.94	1.98	-1.72	0.82

Q9UQE7 1xPhospho [S886]	SMC3 S886	CAF_only	-1.74	0.79	-1.72	1.33
P51948 1xPhospho [T51]	MNAT1 T51	Cancer_and_CAF	-1.49	3.94	-1.73	3.09
Q15643 1xPhospho [S464]	TRIP11 S464	Cancer_only	-2.08	1.57	-1.73	0.56
O60716 1xPhospho [S252]	CTNND1 S252	CAF_only	-2.17	0.82	-1.74	1.55
Q9GZU1 1xPhospho [T34]	MCOLN1 T34	CAF_only	0.28	0.10	-1.75	1.56
Q7Z2K8 [448-462]	GPRIN1 448-462	CAF_only	-2.17	1.27	-1.75	1.41
O60333 1xPhospho [S1613]	KIF1B S1613	Cancer_and_CAF	-1.05	1.67	-1.75	1.35
Q8TEY7 1xPhospho [S439]	USP33 S439	CAF_only	-2.08	0.49	-1.76	1.45
Q12802 1xPhospho [S983]	AKAP13 S983	CAF_only	-1.31	1.12	-1.77	1.81
Q9NUL3 1xPhospho [S416]	STAU2 S416	CAF_only	-0.23	0.10	-1.78	1.71
Q8TBF8 1xPhospho [T290]	FAM81A T290	CAF_only	-2.28	0.25	-1.79	1.34
Q13428 2xPhospho [S1350;T1358]	TCOF1 S1350;T1358	Cancer_only	-3.79	1.43	-1.79	0.56
Q09666 [4516-4529]	AHNAK 4516-4529	CAF_only	-0.08	0.05	-1.79	1.47
Q8N3D4 1xPhospho [S1017]	EHBP1L1 S1017	CAF_only	-1.64	0.71	-1.79	1.39
P36578 1xPhospho [T266]	RPL4 T266	Cancer_only	-2.16	1.44	-1.79	0.97
Q12888 2xPhospho [S784;S786]	TP53BP1 S784;S786	CAF_only	-1.06	1.03	-1.79	1.73
Q13501 1xPhospho [S272]	SQSTM1 S272	CAF_only	-1.63	0.73	-1.79	1.30
Q53H80 2xPhospho [S18;S21]	AKIRIN2 S18;S21	CAF_only	-0.40	0.47	-1.79	2.08
Q00653 1xPhospho [S23]	NFKB2 S23	CAF_only	-0.54	0.16	-1.80	1.80
Q5BKX8 1xPhospho [T227]	MURC T227	CAF_only	-0.63	1.07	-1.80	1.69
Q9UNX4 2xPhospho [S240;T247]	WDR3 S240;T247	CAF_only	0.74	0.08	-1.80	2.00
Q96BY7 1xPhospho [S379]	ATG2B S379	CAF_only	-0.79	0.17	-1.81	2.06
Q09666 1xPhospho [S3054];1xPhospho [S3836]	AHNAK S3054;S3836	Cancer_only	-2.34	1.31	-1.82	0.43
Q8N5I9 1xPhospho [S178]	C12orf45 S178	CAF_only	-1.21	0.55	-1.82	1.62
Q9BZF1 1xPhospho [T39]	OSBPL8 T39	CAF_only	-1.17	1.18	-1.82	2.09
P19338 1xPhospho [S67]	NCL S67	CAF_only	-0.49	0.28	-1.82	1.68

O95219 1xPhospho [S22]	SNX4 S22	Cancer_only	-1.34	1.38	-1.83	0.79
Q5UIP0 1xPhospho [S1046]	RIF1 S1046	Cancer_only	-1.17	2.00	-1.83	0.37
Q99590 1xPhospho [S902]	SCAF11 S902	CAF_only	-0.79	0.38	-1.84	1.80
Q96QD9 1xPhospho [S16]	FYTTD1 S16	CAF_only	-1.17	0.47	-1.85	1.34
O14965 [286-304]	AURKA 286-304	CAF_only	-0.15	0.08	-1.85	1.30
Q9C0C2 1xPhospho [S435]	TNKS1BP1 S435	Cancer_only	-1.34	2.07	-1.85	0.92
Q86XJ1 [184-205]	GAS2L3 184-205	Cancer_only	-1.40	2.57	-1.85	0.99
Q96SK2 1xPhospho [S222]	TMEM209 S222	Cancer_only	-2.45	1.68	-1.86	0.89
Q9Y2I7 1xPhospho [S329]	PIKFYVE S329	CAF_only	0.02	0.01	-1.86	1.53
O15061 1xPhospho [S1435]	SYNM S1435	Cancer_only	-1.74	2.09	-1.86	0.59
Q5SW79 2xPhospho [S1522;S1529]	CEP170 S1522;S1529	Cancer_only	-1.62	1.73	-1.86	0.58
Q93052 1xPhospho [T333]	LPP T333	CAF_only	-0.58	0.20	-1.87	1.67
P23508 1xPhospho [S485]	MCC S485	CAF_only	-0.36	0.63	-1.87	2.34
P49023 1xPhospho [S258]	PXN S258	Cancer_and_CAF	-1.63	1.99	-1.88	1.38
P35659 [209-215]	DEK 209-215	CAF_only	-1.13	0.86	-1.88	1.72
Q14202 1xPhospho [S774]	ZMYM3 S774	Cancer_only	-3.22	1.48	-1.88	0.49
Q09666 1xPhospho [S5400]	AHNAK S5400	Cancer_only	-2.33	2.23	-1.89	0.57
Q5UIP0 2xPhospho [S2172;S2176]	RIF1 S2172;S2176	CAF_only	-1.95	0.79	-1.89	1.95
Q66K14 2xPhospho [S411;S435]	TBC1D9B S411;S435	Cancer_only	-2.19	2.22	-1.89	0.42
Q9UJU6 1xPhospho [T270]	DBNL T270	CAF_only	-1.26	0.92	-1.89	1.84
Q9H3M7 2xPhospho [T348;T349]	TXNIP T348;T349	Cancer_and_CAF	-3.32	1.41	-1.89	1.31
Q9HC52 1xPhospho [S110]	CBX8 S110	Cancer_only	-1.16	1.34	-1.89	0.93
Q9P266 1xPhospho [S400]	KIAA1462 S400	Cancer_only	-1.79	1.32	-1.90	1.11
Q92922 1xPhospho [T398]	SMARCC1 T398	Cancer_only	-2.12	2.27	-1.90	0.66
Q92576 1xPhospho [S1642]	PHF3 S1642	CAF_only	-1.76	1.01	-1.91	1.77
Q9Y2W1 2xPhospho [S134;S136]	THRAP3 S134;S136	CAF_only	-1.48	0.26	-1.91	1.64

Q5VUA4 2xPhospho [S305;S307]	ZNF318 S305;S307	CAF_only	-1.48	0.26	-1.91	1.64
Q8IYB3 2xPhospho [S179;S181];2xPhospho [S590;S592]	SRRM1 S179;S181;S590;S592	CAF_only	-1.48	0.26	-1.91	1.64
Q8NAV1 2xPhospho [S250;S252]	PRPF38A S250;S252	CAF_only	-1.48	0.26	-1.91	1.64
Q9NS91 1xPhospho [S164]	RAD18 S164	Cancer_and_CAF	-2.08	1.47	-1.91	1.32
Q9BVI0 1xPhospho [S415]	PHF20 S415	Cancer_only	-1.83	1.37	-1.91	0.56
Q9UPU5 1xPhospho [S63]	USP24 S63	CAF_only	0.40	1.85	-1.92	1.47
P54274 1xPhospho [T371]	TERF1 T371	CAF_only	-2.02	0.60	-1.92	2.40
Q8IY18 2xPhospho [T10;S12]	SMC5 T10;S12	Cancer_only	-2.88	2.01	-1.92	0.70
P25054 1xPhospho [S2724]	APC S2724	Cancer_and_CAF	-1.92	1.43	-1.93	1.70
Q96AC1 2xPhospho [S159;S181]	FERMT2 S159;S181	Cancer_and_CAF	1.14	1.32	-1.94	2.54
Q9UKI8 [126-137]	TLK1 126-137	Cancer_only	-1.01	1.43	-1.94	0.57
O94901 1xPhospho [S138]	SUN1 S138	Cancer_and_CAF	-1.54	1.32	-1.94	1.32
Q9Y6D6 1xPhospho [S52]	ARFGEF1 S52	CAF_only	-0.93	0.87	-1.95	2.18
Q9HC35 1xPhospho [S138]	EML4 S138	CAF_only	-0.30	0.26	-1.95	2.53
Q63ZY6 2xPhospho [T258;S260]	NSUN5P2 T258;S260	CAF_only	-2.02	1.00	-1.96	2.09
O43301 1xPhospho [S23]	HSPA12A S23	CAF_only	-2.14	1.16	-1.97	1.55
Q8TAQ2 1xPhospho [S286]	SMARCC2 S286	Cancer_only	-1.77	1.44	-1.98	0.49
Q32MZ4 1xPhospho [S16]	LRRFIP1 S16	Cancer_and_CAF	-1.08	1.33	-1.98	1.67
Q92560 1xPhospho [S292]	BAP1 S292	CAF_only	-0.67	0.57	-1.98	1.44
P19474 1xPhospho [S266]	TRIM21 S266	CAF_only	-0.42	0.11	-1.98	1.32
Q6IE81 1xPhospho [S603]	JADE1 S603	Cancer_only	-1.92	2.18	-1.99	1.03
Q07866 1xPhospho [S460]	KLC1 S460	CAF_only	-0.19	0.23	-1.99	1.99
Q8IVL1 1xPhospho [S1977]	NAV2 S1977	Cancer_and_CAF	-2.99	1.67	-1.99	1.38
P18583 [142-172]	SON 142-172	CAF_only	-2.17	0.87	-2.00	1.69
Q14980 2xPhospho [S1991;T2000]	NUMA1 S1991;T2000	CAF_only	-1.05	0.37	-2.00	1.73
P10244 1xPhospho [T505]	MYBL2 T505	Cancer_only	-3.13	1.70	-2.00	0.83

Q5TBA9 1xPhospho [S1995]	FRY S1995	Cancer_and_CAF	-1.84	3.03	-2.01	1.65
Q8NCW6 1xPhospho [S545]	GALNT11 S545	Cancer_and_CAF	-1.84	3.03	-2.01	1.65
P15559 1xPhospho [S82]	NQO1 S82	CAF_only	-3.40	1.24	-2.02	1.36
P41227 2xPhospho [S182;S186]	NAA10 S182;S186	CAF_only	-0.98	1.21	-2.03	1.89
Q09666 1xPhospho [S5863]	AHNAK S5863	CAF_only	-2.01	1.10	-2.03	1.76
Q9C0B5 1xPhospho [T659]	ZDHHC5 T659	Cancer_only	-2.19	1.42	-2.04	0.81
Q9BQG0 1xPhospho [T1227]	MYBBP1A T1227	CAF_only	-1.53	1.29	-2.04	2.42
O00566 1xPhospho [T341]	MPHOSPH10 T341	CAF_only	-0.96	0.69	-2.05	1.76
Q8TEC5 1xPhospho [S649]	SH3RF2 S649	CAF_only	-0.31	0.10	-2.05	1.92
Q9UH99 1xPhospho [S116]	SUN2 S116	CAF_only	-2.07	0.39	-2.06	1.59
Q8TEW0 1xPhospho [S201]	PARD3 S201	CAF_only	-0.86	0.23	-2.06	1.34
Q8WU20 1xPhospho [S211]	FRS2 S211	Cancer_only	-1.27	1.44	-2.07	0.61
Q9UQ35 1xPhospho [T2599]	SRRM2 T2599	Cancer_only	-2.81	1.49	-2.07	1.16
Q8NI27 2xPhospho [T1285;T1289]	THOC2 T1285;T1289	Cancer_only	-1.78	1.74	-2.07	0.76
O75807 1xPhospho [S143]	PPP1R15A S143	CAF_only	-1.37	0.40	-2.08	2.70
P22670 [970-979]	RFX1 970-979	CAF_only	0.59	0.35	-2.08	1.78
Q9H582 1xPhospho [S1189]	ZNF644 S1189	Cancer_and_CAF	-3.30	1.38	-2.08	2.22
Q86WB0 2xPhospho [T387;S/T]	ZC3HC1 T387;S/T	CAF_only	-0.72	0.41	-2.08	1.42
Q8N5L8 1xPhospho [S100]	RPP25L S100	CAF_only	-1.55	1.15	-2.09	1.35
Q8TB61 1xPhospho [S427]	SLC35B2 S427	CAF_only	-3.16	0.66	-2.10	1.73
Q8WYP5 1xPhospho [S1513]	AHCTF1 S1513	CAF_only	-3.27	1.25	-2.11	1.46
P46087 1xPhospho [S786]	NOP2 S786	Cancer_only	-3.31	2.30	-2.12	0.43
Q5UIP0 1xPhospho [S2196]	RIF1 S2196	Cancer_only	-1.24	2.89	-2.12	0.78
Q14152 1xPhospho [S978]	EIF3A S978	Cancer_only	-2.19	1.64	-2.13	0.53
Q92997 1xPhospho [S192]	DVL3 S192	Cancer_only	1.62	1.75	-2.13	0.64
P29966 2xPhospho [T150;T/S]	MARCKS T150;T/S	Cancer_only	-2.64	1.39	-2.14	1.12

P12270 1xPhospho [S1185]	TPR S1185	CAF_only	-2.03	1.24	-2.14	2.27
Q15398 1xPhospho [S690]	DLGAP5 S690	CAF_only	-0.88	0.87	-2.14	1.47
Q92504 1xPhospho [S293]	SLC39A7 S293	Cancer_only	-1.94	2.63	-2.14	1.00
Q12830 1xPhospho [S1231]	BPTF S1231	Cancer_only	-2.44	1.81	-2.14	1.18
P05114 1xPhospho [S8]	HMGN1 S8	CAF_only	-1.74	0.51	-2.15	1.38
P02545 1xPhospho [S407]	LMNA S407	CAF_only	-1.52	0.36	-2.15	1.51
Q8N141 1xPhospho [T193];1xPhospho [T333];1xPhospho [T361];1xPhospho [T389]	ZFP82 T193;T333;T361;T389	CAF_only	-1.10	0.73	-2.16	1.81
P27816 1xPhospho [S825]	MAP4 S825	CAF_only	-0.92	0.48	-2.16	1.39
Q8TEK3 1xPhospho [T355]	DOT1L T355	Cancer_only	-2.94	2.34	-2.16	1.27
P49711 1xPhospho [T518]	CTCF T518	CAF_only	-1.45	1.03	-2.17	2.14
Q9UM11 [136-156]	FZR1 136-156	CAF_only	-0.61	0.72	-2.18	1.43
Q92604 1xPhospho [S233]	LPGAT1 S233	Cancer_only	-2.57	1.88	-2.20	0.87
Q12968 2xPhospho [S240;S244]	NFATC3 S240;S244	Cancer_only	-2.29	3.75	-2.21	0.45
Q13112 2xPhospho [T432;T433]	CHAF1B T432;T433	Cancer_only	-2.18	1.33	-2.23	0.50
Q3V6T2 1xPhospho [S1675]	CCDC88A S1675	Cancer_only	-1.69	1.41	-2.23	1.14
Q15814 1xPhospho [S168]	TBCC S168	CAF_only	-0.39	0.19	-2.23	2.28
Q9HCH5 1xPhospho [S301]	SYTL2 S301	Cancer_and_CAF	-2.78	1.31	-2.24	1.46
Q8TDJ6 1xPhospho [S1857]	DMXL2 S1857	CAF_only	-0.15	0.20	-2.24	1.39
Q02224 1xPhospho [S1211]	CENPE S1211	Cancer_only	-1.80	1.41	-2.24	0.73
Q9Y473 1xPhospho [S442]	ZNF175 S442	CAF_only	-1.61	1.02	-2.25	2.42
Q9P270 1xPhospho [S147]	SLAIN2 S147	CAF_only	-2.68	0.77	-2.25	1.41
Q9NR30 1xPhospho [S71]	DDX21 S71	CAF_only	-2.67	0.97	-2.25	2.08
Q99729 1xPhospho [S242]	HNRNPAB S242	Cancer_and_CAF	-2.63	2.24	-2.26	1.64
Q8WYP5 2xPhospho [S2222;S2226]	AHCTF1 S2222;S2226	CAF_only	-0.86	0.38	-2.26	2.62
Q14694 1xPhospho [T100]	USP10 T100	CAF_only	-1.61	0.85	-2.28	1.45

Q99590 1xPhospho [S776]	SCAF11 S776	Cancer_only	-2.14	2.02	-2.30	0.97
Q15007 [287-294]	WTAP 287-294	CAF_only	-2.78	1.08	-2.31	2.24
Q14839 1xPhospho [S1245]	CHD4 S1245	CAF_only	-2.58	1.05	-2.31	1.45
O95785 2xPhospho [S1127;S1134]	WIZ S1127;S1134	CAF_only	-1.44	1.24	-2.32	1.47
Q96DT6 1xPhospho [T452]	ATG4C T452	Cancer_only	-1.20	1.44	-2.34	0.29
Q13136 1xPhospho [S708]	PPFIA1 S708	CAF_only	-1.94	0.90	-2.36	1.39
Q9NYZ3 1xPhospho [S152]	GTSE1 S152	CAF_only	1.00	0.95	-2.36	2.30
O95292 1xPhospho [S158]	VAPB S158	Cancer_only	-1.86	1.32	-2.36	1.10
P49454 1xPhospho [T1541]	CENPF T1541	Cancer_and_CAF	-1.70	1.49	-2.36	1.59
ENST00000382031_NCI-H1792_Mis:P2036S 1xPhospho [S1913]	MAP1A S1913	Cancer_only	-1.33	1.83	-2.36	1.11
P78559 1xPhospho [S1675]	MAP1A S1675	Cancer_only	-1.33	1.83	-2.36	1.11
Q92545 1xPhospho [S1863]	TMEM131 S1863	CAF_only	-1.82	1.17	-2.38	1.66
P46100 [47-70]	ATRX 47-70	CAF_only	-1.40	0.67	-2.39	1.38
Q9BZ95 2xPhospho [S571;S/T]	WHSC1L1 S571;S/T	Cancer_and_CAF	-2.26	2.04	-2.39	1.30
P48729 1xPhospho [T321]	CSNK1A1 T321	Cancer_only	-1.32	2.33	-2.39	1.26
P07197 1xPhospho [S44]	NEFM S44	CAF_only	-1.60	1.04	-2.43	1.47
P08670 2xPhospho [S9;S10]	VIM S9;S10	CAF_only	-3.92	0.90	-2.43	1.58
Q96Q15 1xPhospho [S34]	SMG1 S34	CAF_only	-2.85	0.74	-2.43	2.14
P08670 1xPhospho [S25]	VIM S25	CAF_only	-1.87	0.69	-2.43	2.57
Q04721 2xPhospho [S2070;S2081]	NOTCH2 S2070;S2081	Cancer_and_CAF	-2.16	1.43	-2.43	1.69
P02545 1xPhospho [S94]	LMNA S94	Cancer_only	-2.70	1.61	-2.44	0.86
Q9UNE2 1xPhospho [S128]	RPH3AL S128	CAF_only	-1.53	0.58	-2.44	3.19
Q92615 1xPhospho [S434]	LARP4B S434	CAF_only	-1.66	0.53	-2.45	1.34
P17096 1xPhospho [T53]	HMGA1 T53	Cancer_and_CAF	-1.92	1.35	-2.46	2.22
Q9NWB6 1xPhospho [S94]	ARGLU1 S94	Cancer_only	-2.18	1.84	-2.46	0.67

Q9BZD4 1xPhospho [S247]	NUF2 S247	CAF_only	-1.55	0.84	-2.46	1.52
Q9H1E3 2xPhospho [T179;S181]	NUCKS1 T179;S181	CAF_only	-0.26	0.10	-2.46	1.62
P29558 1xPhospho [S112]	RBMS1 S112	Cancer_only	-1.18	1.81	-2.47	0.83
P46821 1xPhospho [T1633]	MAP1B T1633	CAF_only	-1.44	0.45	-2.47	1.55
Q8N5P1 1xPhospho [S59]	ZC3H8 S59	Cancer_and_CAF	-2.91	1.68	-2.48	1.36
Q9UDW1 1xPhospho [T5]	UQCR10 T5	CAF_only	-0.11	0.03	-2.48	1.79
Q8WWI1 1xPhospho [S1129]	LMO7 S1129	CAF_only	-1.64	0.53	-2.48	1.35
O60291 1xPhospho [S524]	MGRN1 S524	Cancer_only	-2.12	1.36	-2.48	0.84
Q86XJ1 1xPhospho [S233]	GAS2L3 S233	Cancer_only	-3.35	1.67	-2.49	0.79
Q69YH5 1xPhospho [S756]	CDCA2 S756	Cancer_and_CAF	-2.91	1.61	-2.51	1.63
Q16643 1xPhospho [S134]	DBN1 S134	CAF_only	-3.18	1.12	-2.51	2.01
P46087 1xPhospho [S58]	NOP2 S58	Cancer_and_CAF	-4.25	2.03	-2.52	1.78
Q09470 1xPhospho [S445]	KCNA1 S445	Cancer_only	-2.25	1.87	-2.53	1.12
P46821 1xPhospho [T2034]	MAP1B T2034	CAF_only	-0.57	0.11	-2.53	2.03
P43487 [6-39]	RANBP1 6-39	CAF_only	-0.85	0.88	-2.54	2.05
Q13111 1xPhospho [S203]	CHAF1A S203	CAF_only	-1.59	0.39	-2.54	2.40
Q9NXE4 1xPhospho [S323]	SMPD4 S323	Cancer_only	-2.77	2.96	-2.56	0.77
P49792 1xPhospho [S1993]	RANBP2 S1993	Cancer_and_CAF	-2.38	1.64	-2.56	1.96
Q99666 1xPhospho [S1017]	RGPD5 S1017	Cancer_and_CAF	-2.38	1.64	-2.56	1.96
Q9H0B6 2xPhospho [S543;S545]	KLC2 S543;S545	CAF_only	-1.06	0.42	-2.59	1.31
Q9H211 1xPhospho [S93]	CDT1 S93	CAF_only	-2.26	0.89	-2.60	1.41
Q12797 1xPhospho [S29]	ASPH S29	Cancer_only	-2.72	1.31	-2.63	0.87
Q96T88 1xPhospho [S639]	UHRF1 S639	CAF_only	-2.08	1.27	-2.63	1.38
Q8WYL5 1xPhospho [S576]	SSH1 S576	CAF_only	0.09	0.05	-2.63	1.36
Q9UHB7 1xPhospho [S860]	AFF4 S860	CAF_only	-0.72	0.58	-2.63	1.91
Q12923 1xPhospho [S345]	PTPN13 S345	Cancer_only	-2.05	1.68	-2.63	0.78

P53985 1xPhospho [S483]	SLC16A1 S483	CAF_only	-3.66	1.12	-2.64	2.76
Q96SK2 1xPhospho [S265]	TMEM209 S265	Cancer_only	-1.96	2.14	-2.66	0.77
P62633 1xPhospho [S151]	CNBP S151	CAF_only	-0.78	0.33	-2.67	1.97
P05114 1xPhospho [S7]	HMGN1 S7	CAF_only	-2.88	1.05	-2.68	1.38
Q9BY89 1xPhospho [S1506]	KIAA1671 S1506	CAF_only	-1.20	0.56	-2.68	1.60
Q9H7E2 1xPhospho [S535]	TDRD3 S535	CAF_only	-2.13	0.92	-2.69	2.01
Q6IAA8 1xPhospho [S27]	LAMTOR1 S27	Cancer_only	-3.82	2.18	-2.69	1.06
Q14978 1xPhospho [T597]	NOLC1 T597	CAF_only	-2.19	0.72	-2.69	3.25
Q14980 1xPhospho [S1840]	NUMA1 S1840	CAF_only	-0.73	0.76	-2.69	1.33
Q14181 [124-134]	POLA2 124-134	CAF_only	-2.06	0.64	-2.71	1.57
Q6P4F7 1xPhospho [S675]	ARHGAP11A S675	CAF_only	-1.90	0.83	-2.72	1.64
P33316 1xPhospho [S248]	DUT S248	CAF_only	-0.09	0.02	-2.72	1.32
P37275 1xPhospho [S521]	ZEB1 S521	Cancer_only	-2.39	2.02	-2.74	0.78
Q8N196 1xPhospho [S123]	SIX5 S123	CAF_only	-1.69	0.38	-2.76	1.43
P05412 1xPhospho [S63]	JUN S63	CAF_only	-4.29	1.13	-2.77	2.40
P27816 1xPhospho [S636]	MAP4 S636	CAF_only	-0.73	0.84	-2.78	1.30
Q96EU6 1xPhospho [S73]	RRP36 S73	CAF_only	-2.57	0.50	-2.78	1.75
Q09666 1xPhospho [T3366]	AHNAK T3366	Cancer_only	-1.32	1.37	-2.79	0.88
Q96T23 1xPhospho [S397]	RSF1 S397	CAF_only	-2.30	0.85	-2.79	1.47
Q2NKX8 2xPhospho [S1134;S1135]	ERCC6L S1134;S1135	Cancer_only	-1.95	1.89	-2.79	0.65
P26358 1xPhospho [S154]	DNMT1 S154	CAF_only	-1.87	1.16	-2.79	1.72
P11387 1xPhospho [S73]	TOP1 S73	CAF_only	-3.12	1.06	-2.79	1.87
O75970 1xPhospho [S1818]	MPDZ S1818	CAF_only	0.98	0.23	-2.82	1.45
Q15024 1xPhospho [S177]	EXOSC7 S177	Cancer_only	-3.23	2.29	-2.83	1.10
O60716 2xPhospho [T916;S920]	CTNND1 T916;S920	Cancer_only	-1.84	1.73	-2.83	0.59
Q9Y6J0 1xPhospho [S433]	CABIN1 S433	CAF_only	-2.10	0.73	-2.84	2.21

P23528 1xPhospho [S24]	CFL1 S24	CAF_only	-0.74	0.34	-2.84	1.81
Q8IXT5 1xPhospho [S254]	RBM12B S254	CAF_only	-2.40	0.76	-2.85	1.44
P40222 1xPhospho [S19]	TXLNA S19	Cancer_only	-1.17	1.36	-2.86	1.05
Q9Y679 1xPhospho [T260]	AUP1 T260	Cancer_only	-1.97	1.32	-2.90	1.22
P46013 1xPhospho [T1355]	MKI67 T1355	CAF_only	-1.29	0.51	-2.91	2.12
Q15003 1xPhospho [S459]	NCAPH S459	Cancer_only	-2.42	2.14	-2.92	1.02
Q15633 2xPhospho [S142;S152]	TARBP2 S142;S152	Cancer_and_CAF	-2.75	1.37	-2.94	1.41
Q02224 1xPhospho [T2622]	CENPE T2622	CAF_only	-1.23	1.19	-2.96	1.40
Q6KC79 1xPhospho [S772]	NIPBL S772	CAF_only	-2.04	1.08	-2.98	1.55
Q6NZY4 1xPhospho [T648]	ZCCHC8 T648	Cancer_only	-3.10	1.44	-2.98	0.98
P23588 1xPhospho [S219]	EIF4B S219	CAF_only	-2.08	0.59	-3.01	2.06
P27816 2xPhospho [S787;S793]	MAP4 S787;S793	CAF_only	-1.22	0.25	-3.03	1.56
Q3YEC7 2xPhospho [S402;T408]	RABL6 S402;T408	CAF_only	-0.74	1.39	-3.04	1.46
O43896 1xPhospho [S494]	KIF1C S494	Cancer_and_CAF	-2.21	2.47	-3.06	1.33
Q9BQG0 1xPhospho [S1241]	MYBBP1A S1241	Cancer_and_CAF	-3.35	1.79	-3.07	1.38
O60271 2xPhospho [S329;S332]	SPAG9 S329;S332	CAF_only	-1.40	1.30	-3.08	1.32
O95873 1xPhospho [S112]	C6orf47 S112	CAF_only	-1.32	0.62	-3.08	1.85
Q8WVM7 1xPhospho [S53]	STAG1 S53	CAF_only	-3.03	1.01	-3.09	1.36
Q9H8V3 1xPhospho [T444]	ECT2 T444	CAF_only	-2.71	1.01	-3.11	1.49
P52948 2xPhospho [S1023;S1028]	NUP98 S1023;S1028	CAF_only	-2.01	1.16	-3.12	1.37
Q9NUQ6 1xPhospho [S531]	SPATS2L S531	CAF_only	-1.04	0.49	-3.14	1.51
Q9Y6Y8 1xPhospho [S636]	SEC23IP S636	CAF_only	-1.08	0.63	-3.17	1.35
P07910 1xPhospho [S162]	HNRNPC S162	CAF_only	-4.12	0.61	-3.17	1.57
Q9GZM8 1xPhospho [S231]	NDEL1 S231	Cancer_only	-2.59	1.66	-3.17	0.98
P46013 1xPhospho [T1476]	MKI67 T1476	CAF_only	-1.52	0.40	-3.21	1.46
Q9UEG4 1xPhospho [T257]	ZNF629 T257	Cancer_only	-2.39	1.71	-3.22	0.61

Q15776 1xPhospho [T485]	ZKSCAN8 T485	Cancer_only	-2.39	1.71	-3.22	0.61
Q3KP31 1xPhospho [T155]	ZNF791 T155	Cancer_only	-2.39	1.71	-3.22	0.61
Q9H165 1xPhospho [T400]	BCL11A T400	Cancer_only	-2.39	1.71	-3.22	0.61
Q15361 1xPhospho [S403]	TTF1 S403	Cancer_only	-2.00	2.09	-3.22	1.25
Q9Y2K7 2xPhospho [T550;S558]	KDM2A T550;S558	CAF_only	-0.35	0.26	-3.23	1.47
Q12888 1xPhospho [S809]	TP53BP1 S809	Cancer_only	-3.71	1.73	-3.24	0.86
Q13352 1xPhospho [S60]	ITGB3BP S60	Cancer_and_CAF	-3.52	1.39	-3.24	2.24
P62820 1xPhospho [S194]	RAB1A S194	Cancer_only	-3.29	1.58	-3.27	1.10
Q02952 1xPhospho [S1691]	AKAP12 S1691	CAF_only	-0.87	0.59	-3.28	3.49
Q9Y2U8 1xPhospho [S280]	LEMD3 S280	Cancer_and_CAF	-3.78	2.61	-3.30	1.98
P23528 1xPhospho [T25]	CFL1 T25	CAF_only	-1.20	0.97	-3.31	1.60
Q15058 1xPhospho [S346]	KIF14 S346	Cancer_only	-3.84	1.43	-3.32	0.75
O95292 1xPhospho [T150]	VAPB T150	Cancer_and_CAF	-3.33	2.29	-3.32	2.37
P17096 1xPhospho [S36]	HMGA1 S36	CAF_only	-2.40	0.71	-3.35	1.33
O75369 1xPhospho [S983]	FLNB S983	Cancer_only	-2.58	1.53	-3.41	0.90
O75367 1xPhospho [T129]	H2AFY T129	CAF_only	-2.29	0.95	-3.42	1.58
O95239 1xPhospho [S1038]	KIF4A S1038	Cancer_only	-4.53	2.57	-3.44	0.78
P46821 1xPhospho [S743]	MAP1B S743	CAF_only	-0.61	0.40	-3.44	1.75
Q8IWA0 1xPhospho [S796]	WDR75 S796	Cancer_only	-4.44	1.37	-3.48	0.93
Q03252 2xPhospho [S421;S424]	LMNB2 S421;S424	CAF_only	-4.45	1.07	-3.49	1.42
P46013 1xPhospho [T2325]	MKI67 T2325	CAF_only	-0.33	0.06	-3.49	2.38
P08670 2xPhospho [S51;S56]	VIM S51;S56	CAF_only	-2.22	0.47	-3.49	1.42
P36578 1xPhospho [S295]	RPL4 S295	CAF_only	-2.76	0.57	-3.50	1.32
P52758 1xPhospho [S136]	HRSP12 S136	CAF_only	-1.04	0.18	-3.52	1.88
Q07065 1xPhospho [S17]	CKAP4 S17	Cancer_only	-3.94	1.81	-3.52	1.15
Q9NYB0 1xPhospho [S36]	TERF2IP S36	Cancer_only	-2.38	1.76	-3.53	0.87

Q9NRG9 1xPhospho [T57]	AAAS T57	Cancer_only	-2.09	2.50	-3.54	1.25
Q9UBB5 1xPhospho [S181]	MBD2 S181	Cancer_only	-2.67	1.35	-3.56	0.69
Q68CP4 1xPhospho [S243]	HGSNAT S243	CAF_only	-3.47	1.00	-3.56	1.82
Q9UM11 1xPhospho [S70]	FZR1 S70	Cancer_only	-2.80	1.89	-3.59	1.13
Q96NW4 1xPhospho [S634]	ANKRD27 S634	CAF_only	-3.55	0.97	-3.61	1.57
Q9BY77 1xPhospho [S368]	POLDIP3 S368	Cancer_and_CAF	-3.60	1.80	-3.64	1.64
Q9UIG0 1xPhospho [S330]	BAZ1B S330	CAF_only	-2.73	0.77	-3.66	1.44
P98175 1xPhospho [S687]	RBM10 S687	CAF_only	-4.00	0.74	-3.66	2.41
O15504 1xPhospho [S106]	NUPL2 S106	Cancer_only	-2.26	2.56	-3.69	0.95
Q7Z4H7 1xPhospho [S552]	HAUS6 S552	Cancer_and_CAF	-3.01	1.99	-3.73	1.33
P56181 1xPhospho [S53]	NDUFV3 S53	Cancer_only	-3.77	1.32	-3.73	1.21
Q9NX40 1xPhospho [S123]	OCIAD1 S123	Cancer_only	-2.60	1.34	-3.74	1.01
Q0D2J5 1xPhospho [T335]	ZNF763 T335	CAF_only	-1.58	0.68	-3.76	1.60
P20700 2xPhospho [T19;S/T]	LMNB1 T19;S/T	Cancer_and_CAF	-4.03	2.02	-3.76	1.49
P56182 1xPhospho [S383]	RRP1 S383	CAF_only	-4.54	1.09	-3.79	1.42
Q53SF7 1xPhospho [S366]	COBLL1 S366	Cancer_and_CAF	-1.95	2.32	-3.82	1.42
Q2NKX8 1xPhospho [S1117]	ERCC6L S1117	Cancer_and_CAF	-1.82	1.56	-3.85	1.76
Q99618 2xPhospho [S29;S31]	CDCA3 S29;S31	Cancer_only	-3.55	2.01	-3.85	0.59
Q9UNF1 1xPhospho [T72]	MAGED2 T72	CAF_only	-1.73	1.08	-3.86	1.47
Q8NEZ4 1xPhospho [S1981]	KMT2C S1981	CAF_only	-4.99	0.60	-3.86	1.43
P35251 1xPhospho [S312]	RFC1 S312	Cancer_and_CAF	-2.97	2.00	-3.88	1.96
P46013 2xPhospho [S1131;T1139]	MKI67 S1131;T1139	Cancer_only	-1.78	1.36	-3.88	1.13
Q02224 1xPhospho [S2639]	CENPE S2639	Cancer_only	-2.45	1.93	-3.89	1.18
O60832 1xPhospho [S21]	DKC1 S21	Cancer_and_CAF	-3.49	1.70	-3.93	1.31
Q86XL3 1xPhospho [S896]	ANKLE2 S896	Cancer_only	-3.65	2.01	-3.96	0.85
Q9NSC2 1xPhospho [T729]	SALL1 T729	CAF_only	-1.89	0.44	-3.96	1.92

Q9ULD5 1xPhospho [T717]	ZNF777 T717	CAF_only	-1.89	0.44	-3.96	1.92
Q9Y3C1 1xPhospho [S16]	NOP16 S16	Cancer_only	1.11	1.46	-3.98	0.38
Q9NRA8 1xPhospho [S115]	EIF4ENIF1 S115	CAF_only	-2.55	1.12	-4.02	1.32
P78347 1xPhospho [S210]	GTF2I S210	Cancer_only	-3.31	1.56	-4.05	1.20
P06748 1xPhospho [S254]	NPM1 S254	CAF_only	-4.37	1.10	-4.05	1.45
P84243 1xPhospho [S32]	H3F3A S32	CAF_only	-1.94	0.42	-4.06	1.40
Q09666 1xPhospho [S3182];1xPhospho [S3964];1xPhospho [S4684]	AHNAK S3182;S3964;S4684	Cancer_only	-2.87	1.45	-4.13	0.68
Q9BZE4 1xPhospho [S558]	GTPBP4 S558	CAF_only	-3.01	0.80	-4.14	1.75
Q96SK2 1xPhospho [S248]	TMEM209 S248	Cancer_only	-3.29	2.03	-4.17	0.96
Q8NDI1 1xPhospho [S408]	EHBP1 S408	CAF_only	-2.35	0.74	-4.20	1.54
Q03252 2xPhospho [T34;S37]	LMNB2 T34;S37	Cancer_and_CAF	-4.12	1.95	-4.20	1.84
P05412 1xPhospho [S73]	JUN S73	CAF_only	-4.66	0.57	-4.20	1.38
P17535 1xPhospho [S100]	JUND S100	CAF_only	-4.66	0.57	-4.20	1.38
Q8WYA6 1xPhospho [S80]	CTNNBL1 S80	Cancer_only	-1.51	1.91	-4.23	1.06
Q15397 1xPhospho [S77]	KIAA0020 S77	Cancer_and_CAF	-4.37	1.33	-4.23	2.09
Q12888 1xPhospho [S975]	TP53BP1 S975	Cancer_only	-3.69	2.11	-4.29	1.02
Q9UEY8 1xPhospho [T481]	ADD3 T481	CAF_only	-0.83	0.23	-4.29	2.08
P06748 2xPhospho [S218;T219]	NPM1 S218;T219	CAF_only	0.39	0.09	-4.36	1.80
Q9BZF3 1xPhospho [S9]	OSBPL6 S9	Cancer_and_CAF	-4.39	1.55	-4.38	1.44
P50579 1xPhospho [S74]	METAP2 S74	CAF_only	-2.32	0.36	-4.43	1.31
P55317 1xPhospho [S234]	FOXA1 S234	CAF_only	-4.51	1.00	-4.43	1.60
Q8NEG2 1xPhospho [S250]	C7orf57 S250	CAF_only	-1.82	0.19	-4.45	2.19
Q6PL18 1xPhospho [S1233]	ATAD2 S1233	CAF_only	-3.92	0.92	-4.50	1.49
Q9NTI5 1xPhospho [S1319]	PDS5B S1319	Cancer_only	-2.73	1.31	-4.52	0.93
Q5JTH9 1xPhospho [S1284]	RRP12 S1284	Cancer_only	-3.37	1.38	-4.59	0.91

Q09666 1xPhospho [S1286];1xPhospho [S2670];1xPhospho [S2798];1xPhospho [S3054];1xPhospho [S3182];1xPhospho [S3836];1xPhospho [S3964];1xPhospho [S4092];1xPhospho [S4220];1xPhospho [S4684];1xPhospho [S4812]	AHNAK S1286;S2670;S2798;S3054;S3182;S3836;S3964;S4092;S4220;S4684;S4812	Cancer_and_CAF	-4.14	1.43	-4.64	1.43
Q9Y3E5 1xPhospho [S57]	PTRH2 S57	CAF_only	-1.35	0.27	-4.69	1.65
P50851 1xPhospho [T1033]	LRBA T1033	CAF_only	-0.25	0.05	-4.70	2.01
Q6P4F7 1xPhospho [S484]	ARHGAP11A S484	Cancer_only	-2.97	1.46	-4.72	1.30
Q14978 1xPhospho [S643]	NOLC1 S643	Cancer_and_CAF	-5.24	2.08	-4.73	1.56
Q12906 1xPhospho [T592]	ILF3 T592	Cancer_only	-5.30	1.78	-4.76	1.28
P61927 1xPhospho [S50]	RPL37 S50	CAF_only	1.63	0.95	-4.80	1.31
Q29RF7 1xPhospho [T1208]	PDS5A T1208	CAF_only	-3.78	0.99	-4.86	1.44
Q6P4F7 1xPhospho [T508]	ARHGAP11A T508	CAF_only	-3.98	0.91	-4.91	2.76
P46013 1xPhospho [T2085]	MKI67 T2085	Cancer_and_CAF	-3.62	1.55	-4.96	1.56
Q8WWK9 2xPhospho [T579;T582]	CKAP2 T579;T582	CAF_only	-1.50	0.57	-4.96	1.88
P10412 1xPhospho [S27]	HIST1H1E S27	CAF_only	-2.70	0.79	-4.99	2.10
P46013 1xPhospho [T2406]	MKI67 T2406	CAF_only	-3.64	0.97	-5.01	1.54
Q9Y3C1 1xPhospho [T144]	NOP16 T144	Cancer_only	-4.33	1.94	-5.06	1.15
P46013 1xPhospho [S2505]	MKI67 S2505	Cancer_only	-4.54	1.79	-5.14	1.23
P46060 2xPhospho [S435;S442]	RANGAP1 S435;S442	Cancer_and_CAF	-3.12	1.37	-5.18	1.34
Q8WWQ0 1xPhospho [S692]	PHIP S692	CAF_only	-4.20	1.06	-5.30	1.79
O76021 2xPhospho [T423;S427]	RSL1D1 T423;S427	Cancer_and_CAF	-2.87	1.73	-5.32	1.62
P35659 2xPhospho [S32;S51]	DEK S32;S51	CAF_only	-2.81	1.07	-5.41	1.91
Q14683 1xPhospho [S970]	SMC1A S970	CAF_only	-4.27	0.98	-5.43	2.29
P48681 1xPhospho [S325]	NES S325	Cancer_and_CAF	-7.20	1.43	-5.49	1.63
Q9NTJ4 2xPhospho [S480;T482]	MAN2C1 S480;T482	Cancer_only	-4.81	1.36	-5.49	1.20
P58317 1xPhospho [T167]	ZNF121 T167	CAF_only	-2.32	0.59	-5.52	1.38

Q0D2J5 1xPhospho [T223]	ZNF763 T223	CAF_only	-2.32	0.59	-5.52	1.38
Q3KP31 1xPhospho [T379];1xPhospho [T463];1xPhospho [T491]	ZNF791 T379;T463;T491	CAF_only	-2.32	0.59	-5.52	1.38
Q9NRL2 1xPhospho [S1279]	BAZ1A S1279	Cancer_and_CAF	-5.25	1.78	-5.54	3.39
P17844 1xPhospho [S498]	DDX5 S498	Cancer_only	-6.15	1.71	-5.59	0.83
Q5JU85 1xPhospho [S302]	IQSEC2 S302	CAF_only	-2.71	0.46	-5.62	1.50
Q14978 1xPhospho [S508]	NOLC1 S508	CAF_only	-2.70	0.92	-5.75	1.35
Q14103 1xPhospho [S351]	HNRNPD S351	CAF_only	0.44	0.87	-5.97	2.34
Q14978 1xPhospho [T238]	NOLC1 T238	CAF_only	-7.45	1.00	-5.98	1.32
P52948 1xPhospho [S839]	NUP98 S839	Cancer_only	-6.62	1.51	-6.07	1.26
Q9BZE4 1xPhospho [S623]	GTPBP4 S623	CAF_only	-1.96	0.59	-6.12	1.35
P16402 1xPhospho [T147]	HIST1H1D T147	Cancer_only	-7.60	2.07	-6.50	1.22
A8CG34 1xPhospho [S291]	POM121C S291	CAF_only	-6.85	0.90	-6.52	1.55
Q96HA1 1xPhospho [S314]	POM121 S314	CAF_only	-6.85	0.90	-6.52	1.55
O75475 1xPhospho [T141]	PSIP1 T141	CAF_only	-5.52	0.93	-6.61	3.09
O76021 2xPhospho [S392;S396]	RSL1D1 S392;S396	Cancer_only	-5.64	1.81	-6.91	0.98
O75683 1xPhospho [S74]	SURF6 S74	Cancer_and_CAF	-6.67	1.52	-7.47	3.94
Q9P0K7 1xPhospho [S11]	RAI14 S11	CAF_only	-6.97	1.16	-7.75	1.63
O95239 1xPhospho [T799]	KIF4A T799	CAF_only	-3.83	0.61	-8.50	1.39
O75683 1xPhospho [T229]	SURF6 T229	Cancer_and_CAF	-7.78	2.01	-8.81	1.89
P45973 1xPhospho [S92]	CBX5 S92	CAF_only	-5.96	0.79	-9.86	1.51
Q92618 1xPhospho [T57]	ZNF516 T57	CAF_only	-9.24	1.29	-12.25	2.15