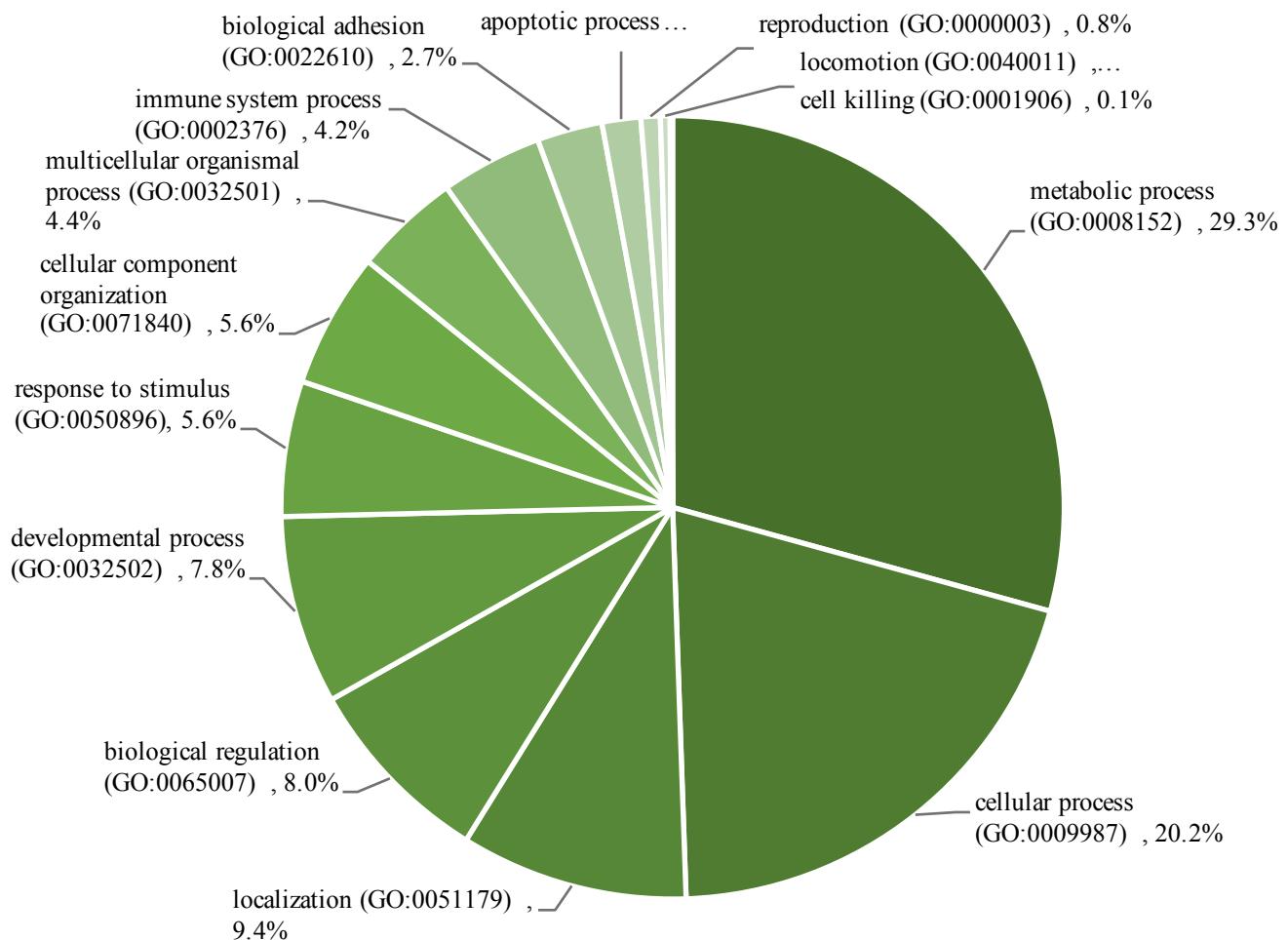


**DEPs in osteosarcoma cells comparing to osteoblastic cells**

<b>Biological Process</b>	<b>Protein</b>	<b>Percentage of Hits</b>
<a href="#"><u>metabolic process (GO:0008152)</u></a>	29.3	29.3%
<a href="#"><u>cellular process (GO:0009987)</u></a>	20.2	20.2%
<a href="#"><u>localization (GO:0051179)</u></a>	9.4	9.4%
<a href="#"><u>biological regulation (GO:0065007)</u></a>	8	8.0%
<a href="#"><u>developmental process (GO:0032502)</u></a>	7.8	7.8%
<a href="#"><u>response to stimulus (GO:0050896)</u></a>	5.6	5.6%
<a href="#"><u>cellular component organization (GO:0071840)</u></a>	5.6	5.6%
<a href="#"><u>multicellular organismal process (GO:0032501)</u></a>	4.4	4.4%
<a href="#"><u>immune system process (GO:0002376)</u></a>	4.2	4.2%
<a href="#"><u>biological adhesion (GO:0022610)</u></a>	2.7	2.7%
<a href="#"><u>apoptotic process (GO:0006915)</u></a>	1.6	1.6%
<a href="#"><u>reproduction (GO:0000003)</u></a>	0.8	0.8%
<a href="#"><u>locomotion (GO:0040011)</u></a>	0.4	0.4%
<a href="#"><u>cell killing (GO:0001906)</u></a>	0.1	0.1%
		100.1%

Genes 217 Hits 3870



#### Metabolic process

HUMAN HGNC=12513 UniProtKB=P09936	UCHL1	cysteine protease(PC00190);cysteine protease(PC00081)
HUMAN HGNC=8016 UniProtKB=P46459	NSF	
HUMAN HGNC=9887 UniProtKB=Q09028	RBBP4	receptor(PC00197)
HUMAN HGNC=6541 UniProtKB=P07195	LDHB	dehydrogenase(PC00176)
HUMAN HGNC=11155 UniProtKB=P08579	SNRPB2	mRNA splicing factor(PC00171)
HUMAN HGNC=2552 UniProtKB=Q13617	CUL2	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=1735 UniProtKB=Q16543	CDC37	kinase activator(PC00095);chaperone(PC00140)
HUMAN HGNC=10942 UniProtKB=P43007	SLC1A4	cation transporter(PC00227)
HUMAN HGNC=7568 UniProtKB=P35580	MYH10	G-protein modulator(PC00095);actin binding motor protein(PC00022);cell junction protein(PC00085)
HUMAN HGNC=20499 UniProtKB=Q9H9P8	L2HGDH	dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=6944 UniProtKB=P49736	MCM2	DNA helicase(PC00171);helicase(PC00009);hydrolase(PC00011)
HUMAN HGNC=20451 UniProtKB=Q8IW87	WDFY1	transporter(PC00227);membrane traffic protein(PC00150);kinase activator(PC00095);cytoskeletal protein(PC00140)
HUMAN HGNC=9566 UniProtKB=P48556	PSMD8	enzyme modulator(PC00095)
HUMAN HGNC=10078 UniProtKB=Q9H4A4	RNPEP	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=4621 UniProtKB=P15170	GSPT1	translation elongation factor(PC00171);translation initiation factor(PC00031);translation release factor(PC00223);hydrolase(PC00222);G-protein(PC00224)
HUMAN HGNC=3029 UniProtKB=Q9Y295	DRG1	small GTPase(PC00095)
HUMAN HGNC=9611 UniProtKB=Q05397	PTK2	non-receptor tyrosine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137)
HUMAN HGNC=8068 UniProtKB=P52948	NUP98	transporter(PC00227)
HUMAN HGNC=7 UniProtKB=P01023	A2M	cytokine(PC00207);serine protease inhibitor(PC00083);complement component(PC00095)
HUMAN HGNC=9411 UniProtKB=P14314	PRKCSH	transferase(PC00220);enzyme modulator(PC00095)
HUMAN HGNC=4610 UniProtKB=Q12849	GRSF1	ribosomal protein(PC00171)
HUMAN HGNC=8912 UniProtKB=P35232	PHB	
HUMAN HGNC=4335 UniProtKB=P00367	GLUD1	dehydrogenase(PC00176)
HUMAN HGNC=4312 UniProtKB=P48507	GCLM	ligase(PC00142)
HUMAN HGNC=6948 UniProtKB=P33992	MCM5	DNA helicase(PC00171);helicase(PC00009);hydrolase(PC00011)
HUMAN HGNC=7910 UniProtKB=P06748	NPM1	chaperone(PC00072)
HUMAN HGNC=21055 UniProtKB=Q6UB35	MTHFD1L	ligase(PC00142)
HUMAN HGNC=20233 UniProtKB=Q9Y2Z9	COQ6	oxygenase(PC00176)
HUMAN HGNC=3338 UniProtKB=Q14247	CTTN	basic helix-loop-helix transcription factor(PC00218);non-motor actin binding protein(PC00055)
HUMAN HGNC=9948 UniProtKB=P46063	RECQL	DNA helicase(PC00171);helicase(PC00009)
HUMAN HGNC=15664 UniProtKB=Q9NYU1	UGGT2	glycosyltransferase(PC00220)

HUMAN HGNC=2239 UniProtKB=Q9UNS2	COPS3	enzyme modulator(PC00095)
HUMAN HGNC=10368 UniProtKB=P62917	RPL8	ribosomal protein(PC00171)
HUMAN HGNC=9671 UniProtKB=P23470	PTPRG	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=4004 UniProtKB=Q96AE4	FUBP1	mRNA splicing factor(PC00171);ribonucleoprotein(PC00031);enzyme modulator(PC00147)
HUMAN HGNC=15911 UniProtKB=O00567	NOP56	ribonucleoprotein(PC00171)
HUMAN HGNC=21416 UniProtKB=Q92485	SMPDL3B	phosphodiesterase(PC00121)
HUMAN HGNC=18116 UniProtKB=Q07666	KHDRBS1	transcription cofactor(PC00218);mRNA splicing factor(PC00217)
HUMAN HGNC=9971 UniProtKB=P40938	RFC3	nucleotidyltransferase(PC00220);DNA-directed DNA polymerase(PC00174)
HUMAN HGNC=270 UniProtKB=P09874	PARP1	glycosyltransferase(PC00220);DNA ligase(PC00111);DNA ligase(PC00171)
HUMAN HGNC=851 UniProtKB=P38606	ATP6V1A	ATP synthase(PC00227);anion channel(PC00068);ligand-gated ion channel(PC00002);ligand-gated ion channel(PC00133);DNA binding protein(PC00049);hydrolase(PC00141)
HUMAN HGNC=2973 UniProtKB=O00429	DNM1L	hydrolase(PC00121);small GTPase(PC00095);microtubule family cytoskeletal protein(PC00020)
HUMAN HGNC=11774 UniProtKB=Q03167	TGFBR3	TGF-beta receptor(PC00197)
HUMAN HGNC=8808 UniProtKB=P11177	PDHB	transketolase(PC00220);dehydrogenase(PC00221);lyase(PC00176)
HUMAN HGNC=9548 UniProtKB=P35998	PSMC2	hydrolase(PC00121)
HUMAN HGNC=3192 UniProtKB=Q05639	EEF1A2	translation elongation factor(PC00171);translation initiation factor(PC00031);hydrolase(PC00223);G-protein(PC00222)
HUMAN HGNC=3719 UniProtKB=Q00688	FKBP3	isomerase(PC00135);chaperone(PC00072);calcium-binding protein(PC00060)
HUMAN HGNC=11279 UniProtKB=Q14534	SQLE	oxygenase(PC00176)
HUMAN HGNC=9857 UniProtKB=P61224	RAP1B	small GTPase(PC00095)
HUMAN HGNC=3650 UniProtKB=P39748	FEN1	damaged DNA-binding protein(PC00171);endodeoxyribonuclease(PC00009);exodeoxyribonuclease(PC00086);nuclease(PC00093);hydrolase(PC00098)
HUMAN HGNC=15487 UniProtKB=Q9H3N1	TMX1	
HUMAN HGNC=18468 UniProtKB=Q9NQE9	HINT3	damaged DNA-binding protein(PC00171)
HUMAN HGNC=1481 UniProtKB=P04632	CAPNS1	cysteine protease(PC00190);cysteine protease(PC00081);annexin(PC00121);calmodulin(PC00190)
HUMAN HGNC=14280 UniProtKB=O76071	CIAO1	
HUMAN HGNC=10488 UniProtKB=P31949	S100A11	signaling molecule(PC00207);calmodulin(PC00060)
HUMAN HGNC=4005 UniProtKB=Q96I24	FUBP3	mRNA splicing factor(PC00171);ribonucleoprotein(PC00031);enzyme modulator(PC00147)
HUMAN HGNC=6053 UniProtKB=P12268	IMPDH2	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=6898 UniProtKB=P56192	MARS	aminoacyl-tRNA synthetase(PC00142)
HUMAN HGNC=5270 UniProtKB=P25685	DNAJB1	chaperonin(PC00072)
HUMAN HGNC=14042 UniProtKB=Q9Y3B7	MRPL11	ribosomal protein(PC00171)
HUMAN HGNC=12436 UniProtKB=O43396	TXNL1	oxidoreductase(PC00176)
HUMAN HGNC=7861 UniProtKB=P40261	NNMT	methyltransferase(PC00220)
HUMAN HGNC=13870 UniProtKB=O43809	NUDT21	mRNA splicing factor(PC00171)

HUMAN HGNC=1771 UniProtKB=P24941	CDK2	non-receptor serine/threonine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137);protein kinase(PC00167) non-receptor serine/threonine protein kinase(PC00193);non-receptor tyrosine
HUMAN HGNC=5258 UniProtKB=P08238	HSP90AB1	Hsp90 family chaperone(PC00072)
HUMAN HGNC=10765 UniProtKB=Q15459	SF3A1	mRNA splicing factor(PC00171)
HUMAN HGNC=29020 UniProtKB=Q5VYK3	ECM29	kinase modulator(PC00095)
HUMAN HGNC=10303 UniProtKB=P26373	RPL13	ribosomal protein(PC00171)
HUMAN HGNC=12741 UniProtKB=Q15056	EIF4H	translation initiation factor(PC00171)
HUMAN HGNC=9303 UniProtKB=P30154	PPP2R1B	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=3542 UniProtKB=P12259	F5	transporter(PC00227);apolipoprotein(PC00219);membrane-bound signaling molecule(PC00052);receptor(PC00207); metalloprotease(PC00152);serine protease(PC00197);oxidase(PC00190);metalloprotease(PC00153); serine protease(PC00203);extracellular matrix protein(PC00176);enzyme modulator(PC00175); cell adhesion molecule(PC00121)
HUMAN HGNC=12469 UniProtKB=P22314	UBA1	transfer/carrier protein(PC00219);ligase(PC00142)
HUMAN HGNC=10369 UniProtKB=P32969	RPL9	ribosomal protein(PC00171)
HUMAN HGNC=13312 UniProtKB=P78417	GSTO1	transferase(PC00220);signaling molecule(PC00207);reductase(PC00176);translation elongation factor(PC00198); epimerase/racemase(PC00171);cytoskeletal protein(PC00031)
HUMAN HGNC=9556 UniProtKB=O00231	PSMD11	
HUMAN HGNC=2665 UniProtKB=P08174	CD55	apolipoprotein(PC00219);receptor(PC00052);metalloprotease(PC00197);serine protease(PC00190); metalloprotease(PC00153);serine protease(PC00203);complement component(PC00121);cell adhesion molecule(PC00190)
HUMAN HGNC=2422 UniProtKB=O75390	CS	transferase(PC00220);lyase(PC00144)
HUMAN HGNC=2389 UniProtKB=P02511	CRYAB	chaperone(PC00072)
HUMAN HGNC=28833 UniProtKB=Q9NTK5	OLA1	G-protein(PC00095)
HUMAN HGNC=11995 UniProtKB=O14657	TOR1B	chaperone(PC00072)
HUMAN HGNC=15860 UniProtKB=O94906	PRPF6	mRNA splicing factor(PC00171)
HUMAN HGNC=25311 UniProtKB=Q71DI3	HIST2H3A	histone(PC00171)
HUMAN HGNC=121 UniProtKB=O15254	ACOX3	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=7877 UniProtKB=A5YKK6	CNOT1	transcription factor(PC00218)
HUMAN HGNC=2485 UniProtKB=Q12996	CSTF3	mRNA polyadenylation factor(PC00171)
HUMAN HGNC=16501 UniProtKB=P50479	PDLIM4	transcription factor(PC00218);non-motor actin binding protein(PC00085)
HUMAN HGNC=3271 UniProtKB=Q14152	EIF3A	translation initiation factor(PC00171)
HUMAN HGNC=16969 UniProtKB=Q92598	HSPH1	Hsp70 family chaperone(PC00072)
HUMAN HGNC=9100 UniProtKB=O75051	PLXNA2	tyrosine protein kinase receptor(PC00220);signaling molecule(PC00137);tyrosine protein kinase receptor(PC00193); protein kinase(PC00233)
HUMAN HGNC=9870 UniProtKB=P54136	RARS	

HUMAN HGNC=10429 UniProtKB=P62753	RPS6	ribosomal protein(PC00171)
HUMAN HGNC=681 UniProtKB=Q92888	ARHGEF1	guanyl-nucleotide exchange factor(PC00095)
HUMAN HGNC=3015 UniProtKB=Q14195	DPYSL3	hydrolase(PC00121)
HUMAN HGNC=25564 UniProtKB=Q9NVJ2	ARL8B	small GTPase(PC00095)
HUMAN HGNC=23170 UniProtKB=O75717	WDHD1	DNA binding protein(PC00171)
HUMAN HGNC=23786 UniProtKB=Q8TBX8	PIP4K2C	kinase(PC00220);kinase(PC00137)
HUMAN HGNC=12841 UniProtKB=P07947	YES1	non-receptor tyrosine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137)
HUMAN HGNC=10998 UniProtKB=Q6P1M0	SLC27A4	ligase(PC00142)
HUMAN HGNC=2295 UniProtKB=P00450	CP	transporter(PC00227);apolipoprotein(PC00219);membrane-bound signaling molecule(PC00052);receptor(PC00207); metalloprotease(PC00152);serine protease(PC00197);oxidase(PC00190);metalloprotease(PC00153); serine protease(PC00203);extracellular matrix protein(PC00176);enzyme modulator(PC00175); cell adhesion molecule(PC00121)
HUMAN HGNC=5253 UniProtKB=P07900	HSP90AA1	Hsp90 family chaperone(PC00072)
HUMAN HGNC=22408 UniProtKB=Q7Z3C6	ATG9A	
HUMAN HGNC=3725 UniProtKB=O95302	FKBP9	isomerase(PC00135);chaperone(PC00072);calcium-binding protein(PC00060)
HUMAN HGNC=7219 UniProtKB=Q00013	MPP1	nucleotide kinase(PC00220);protein kinase(PC00137);nucleotide kinase(PC00172);protein kinase(PC00193); cell junction protein(PC00137)
HUMAN HGNC=18380 UniProtKB=Q7L1Q6	BZW1	translation initiation factor(PC00171);nuclease(PC00031)
HUMAN HGNC=18985 UniProtKB=Q7Z4W1	DCXR	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=9302 UniProtKB=P30153	PPP2R1A	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=8982 UniProtKB=Q99570	PIK3R4	
HUMAN HGNC=5321 UniProtKB=Q12891	HYAL2	receptor(PC00197);glycosidase(PC00121)
HUMAN HGNC=9722 UniProtKB=P54886	ALDH18A1	amino acid kinase(PC00220);dehydrogenase(PC00137);amino acid kinase(PC00045)
HUMAN HGNC=24728 UniProtKB=A2RTX5	TARSL2	ligase(PC00142)
HUMAN HGNC=6501 UniProtKB=P13473	LAMP2	membrane trafficking regulatory protein(PC00150)
HUMAN HGNC=8941 UniProtKB=P01009	SERPINA1	serine protease inhibitor(PC00095)
HUMAN HGNC=12822 UniProtKB=Q9NQW7	XPNPEP1	transcription factor(PC00218);metalloprotease(PC00190);nucleic acid binding(PC00153);metalloprotease(PC00171)
HUMAN HGNC=4922 UniProtKB=P19367	HK1	
HUMAN HGNC=30074 UniProtKB=O14802	POLR3A	nucleotidyltransferase(PC00220);DNA-directed RNA polymerase(PC00174)
HUMAN HGNC=9846 UniProtKB=P62826	RAN	small GTPase(PC00095)
HUMAN HGNC=89 UniProtKB=P11310	ACADM	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=4055 UniProtKB=P12956	XRCC6	DNA helicase(PC00171);helicase(PC00009)
HUMAN HGNC=10426 UniProtKB=P46782	RPS5	ribosomal protein(PC00171)
HUMAN HGNC=1027 UniProtKB=Q02338	BDH1	dehydrogenase(PC00176);reductase(PC00092)

HUMAN HGNC=28147 UniProtKB=Q8N9N8	EIF1AD	
HUMAN HGNC=10364 UniProtKB=P62424	RPL7A	ribosomal protein(PC00171)
HUMAN HGNC=3005 UniProtKB=O60762	DPM1	glycosyltransferase(PC00220)
HUMAN HGNC=14495 UniProtKB=Q9Y399	MRPS2	ribosomal protein(PC00171)
HUMAN HGNC=9002 UniProtKB=P48739	PITPNB	transporter(PC00227);transfer/carrier protein(PC00219)
HUMAN HGNC=5046 UniProtKB=P52272	HNRNPM	ribonucleoprotein(PC00171)
HUMAN HGNC=13992 UniProtKB=Q96JY6	PDLIM2	transcription factor(PC00218);non-motor actin binding protein(PC00085)
HUMAN HGNC=2366 UniProtKB=Q9UKG9	CROT	acetyltransferase(PC00220);acyltransferase(PC00038)
HUMAN HGNC=9369 UniProtKB=P49642	PRIM1	primase(PC00171)
HUMAN HGNC=6710 UniProtKB=P09960	LTA4H	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=29550 UniProtKB=Q9NPQ8	RIC8A	
HUMAN HGNC=15971 UniProtKB=Q99816	TSG101	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=28880 UniProtKB=Q9H0U3	MAGT1	glycosyltransferase(PC00220)
HUMAN HGNC=23156 UniProtKB=P26368	U2AF2	mRNA splicing factor(PC00171)
HUMAN HGNC=20876 UniProtKB=Q96S55	WRNIP1	DNA helicase(PC00171);helicase(PC00009)
HUMAN HGNC=10249 UniProtKB=Q9Y6N7	ROBO1	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=14037 UniProtKB=Q96A35	MRPL24	ribosomal protein(PC00171)
HUMAN HGNC=9674 UniProtKB=Q15262	PTPRK	receptor(PC00197);protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=1062 UniProtKB=P53004	BLVRA	dehydrogenase(PC00176)
HUMAN HGNC=9527 UniProtKB=O75475	PSIP1	transcription cofactor(PC00218);growth factor(PC00217)
HUMAN HGNC=8587 UniProtKB=P22234	PAICS	ligase(PC00142)
HUMAN HGNC=24550 UniProtKB=Q9H8H3	METTL7A	methyltransferase(PC00220)
HUMAN HGNC=2738 UniProtKB=O43143	DHX15	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=28826 UniProtKB=Q6UXN9	WDR82	methyltransferase(PC00220)
HUMAN HGNC=15740 UniProtKB=Q9UI42	CPA4	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=9299 UniProtKB=P67775	PPP2CA	protein phosphatase(PC00181);protein phosphatase(PC00195);calcium-binding protein(PC00121)
HUMAN HGNC=3569 UniProtKB=P33121	ACSL1	ligase(PC00142)
HUMAN HGNC=4623 UniProtKB=P00390	GSR	dehydrogenase(PC00176);oxidase(PC00092);reductase(PC00175)
HUMAN HGNC=4878 UniProtKB=P06865	HEXA	glycosidase(PC00121)
HUMAN HGNC=21270 UniProtKB=Q9BQ67	GRWD1	receptor(PC00197)
HUMAN HGNC=21496 UniProtKB=P53367	ARFIP1	G-protein modulator(PC00095)
HUMAN HGNC=21492 UniProtKB=Q8N0U8	VKORC1L1	oxidoreductase(PC00176)
HUMAN HGNC=3363 UniProtKB=P49961	ENTPD1	nucleotide phosphatase(PC00181);nucleotide phosphatase(PC00173)

HUMAN HGNC=2240 UniProtKB=Q92905	COPS5	transcription factor(PC00218)
HUMAN HGNC=9811 UniProtKB=O60216	RAD21	
HUMAN HGNC=3267 UniProtKB=P41091	EIF2S3	translation elongation factor(PC00171);translation initiation factor(PC00031);hydrolase(PC00223);G-protein(PC00222)
HUMAN HGNC=12662 UniProtKB=P61758	VBP1	chaperone(PC00072)
HUMAN HGNC=4188 UniProtKB=O75600	GCAT	transferase(PC00220)
HUMAN HGNC=10411 UniProtKB=P62847	RPS24	ribosomal protein(PC00171)
HUMAN HGNC=24811 UniProtKB=Q14554	PDIA5	
HUMAN HGNC=8091 UniProtKB=P04181	OAT	transaminase(PC00220)
HUMAN HGNC=28112 UniProtKB=Q15024	EXOSC7	exoribonuclease(PC00171);nuclease(PC00031);hydrolase(PC00099)
HUMAN HGNC=4387 UniProtKB=P08754	GNAI3	heterotrimeric G-protein(PC00095)
HUMAN HGNC=19678 UniProtKB=Q9Y5K5	UCHL5	cysteine protease(PC00190);cysteine protease(PC00081)
HUMAN HGNC=12729 UniProtKB=P23381	WARS	aminoacyl-tRNA synthetase(PC00142)
HUMAN HGNC=2873 UniProtKB=P00387	CYB5R3	reductase(PC00176)
HUMAN HGNC=12013 UniProtKB=P67936	TPM4	actin binding motor protein(PC00085)
HUMAN HGNC=17676 UniProtKB=Q9UJ41	RABGEF1	membrane trafficking regulatory protein(PC00150);guanyl-nucleotide exchange factor(PC00151)
HUMAN HGNC=4659 UniProtKB=P78347	GTF2I	transcription factor(PC00218)
HUMAN HGNC=11357 UniProtKB=Q92783	STAM	transporter(PC00227);membrane traffic protein(PC00150);kinase activator(PC00095);cytoskeletal protein(PC00140)
HUMAN HGNC=10983 UniProtKB=Q9UJS0	SLC25A13	amino acid transporter(PC00227);mitochondrial carrier protein(PC00046);transfer/carrier protein(PC00158);ribosomal protein(PC00219);calmodulin(PC00171)
HUMAN HGNC=11713 UniProtKB=Q9Y2W6	TDRKH	nuclease(PC00171)
HUMAN HGNC=10430 UniProtKB=Q15418	RPS6KA1	non-receptor serine/threonine protein kinase(PC00220);transfer/carrier protein(PC00137);non-receptor serine/threonine protein kinase(PC00193);annexin(PC00167);calmodulin(PC00219)
HUMAN HGNC=30031 UniProtKB=Q9BTU6	PI4K2A	kinase(PC00220);kinase(PC00137)
HUMAN HGNC=3261 UniProtKB=Q13144	EIF2B5	nucleotidyltransferase(PC00220);translation initiation factor(PC00174);guanyl-nucleotide exchange factor(PC00171)
HUMAN HGNC=4854 UniProtKB=O15379	HDAC3	reductase(PC00176);nucleic acid binding(PC00198);deacetylase(PC00171)
HUMAN HGNC=663 UniProtKB=P05089	ARG1	hydrolase(PC00121)
HUMAN HGNC=3356 UniProtKB=P22413	ENPP1	nucleotide phosphatase(PC00181);nucleotide phosphatase(PC00173);pyrophosphatase(PC00121)
HUMAN HGNC=9796 UniProtKB=P53611	RABGGTB	acyltransferase(PC00220)
HUMAN HGNC=2188 UniProtKB=Q99715	COL12A1	transporter(PC00227);receptor(PC00197)
HUMAN HGNC=9560 UniProtKB=O43242	PSMD3	enzyme modulator(PC00095)
HUMAN HGNC=6949 UniProtKB=Q14566	MCM6	DNA helicase(PC00171);helicase(PC00009);hydrolase(PC00011)
HUMAN HGNC=120 UniProtKB=Q99424	ACOX2	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=5241 UniProtKB=P11142	HSPA8	Hsp70 family chaperone(PC00072)
HUMAN HGNC=29926 UniProtKB=Q9Y2X3	NOP58	ribonucleoprotein(PC00171)

HUMAN HGNC=2468 UniProtKB=Q9UQE7	SMC3	chromatin/chromatin-binding protein(PC00171);hydrolase(PC00009)
HUMAN HGNC=20883 UniProtKB=Q8N9F7	GDPD1	ligase(PC00142);esterase(PC00121);phosphodiesterase(PC00097)
HUMAN HGNC=186 UniProtKB=P00813	ADA	deaminase(PC00121)
HUMAN HGNC=6502 UniProtKB=P08865	RPSA	ribosomal protein(PC00171)
HUMAN HGNC=3942 UniProtKB=P42345	MTOR	nucleotide kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137);nucleic acid binding(PC00172);nucleotide kinase(PC00193);non-receptor serine/threonine protein kinase(PC00167)
HUMAN HGNC=10761 UniProtKB=Q15047	SETDB1	methyltransferase(PC00220);DNA binding protein(PC00155)
HUMAN HGNC=11609 UniProtKB=P24557	TBXAS1	oxygenase(PC00176);isomerase(PC00177)
HUMAN HGNC=29878 UniProtKB=Q9NQR4	NIT2	hydrolase(PC00121)
HUMAN HGNC=12868 UniProtKB=O95159	ZFPL1	zinc finger transcription factor(PC00218)
HUMAN HGNC=11280 UniProtKB=Q13501	SQSTM1	
HUMAN HGNC=11307 UniProtKB=P08240	SRPR	receptor(PC00197);RNA binding protein(PC00171);G-protein(PC00031)
HUMAN HGNC=4852 UniProtKB=Q13547	HDAC1	reductase(PC00176);nucleic acid binding(PC00198);deacetylase(PC00171)
HUMAN HGNC=245 UniProtKB=Q9UEY8	ADD3	non-motor actin binding protein(PC00085)
HUMAN HGNC=2460 UniProtKB=P67870	CSNK2B	kinase modulator(PC00095)
HUMAN HGNC=9570 UniProtKB=P61289	PSME3	
HUMAN HGNC=15663 UniProtKB=Q9NYU2	UGGT1	glycosyltransferase(PC00220)
HUMAN HGNC=30077 UniProtKB=Q00765	REEP5	transporter(PC00227);receptor(PC00197)
HUMAN HGNC=16841 UniProtKB=Q99732	LITAF	transcription factor(PC00218)
HUMAN HGNC=20254 UniProtKB=O60291	MGRN1	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=13534 UniProtKB=P98198	ATP8B2	cation transporter(PC00227);hydrolase(PC00068)
HUMAN HGNC=2213 UniProtKB=P12111	COL6A3	transporter(PC00227);receptor(PC00197)
HUMAN HGNC=3212 UniProtKB=O43324	EEF1E1	transferase(PC00220);signaling molecule(PC00207);reductase(PC00176);translation elongation factor(PC00198);epimerase/racemase(PC00171);cytoskeletal protein(PC00031)
HUMAN HGNC=7892 UniProtKB=P00491	PNP	phosphorylase(PC00220)
HUMAN HGNC=19712 UniProtKB=A7MBM2	DISP2	receptor(PC00197)
HUMAN HGNC=24460 UniProtKB=Q7L2H7	EIF3M	
HUMAN HGNC=17860 UniProtKB=Q8NC51	SERBP1	RNA binding protein(PC00171)
HUMAN HGNC=2745 UniProtKB=O00571	DDX3X	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=17341 UniProtKB=Q96Q11	TRNT1	nucleotidyltransferase(PC00220);mRNA polyadenylation factor(PC00174)
HUMAN HGNC=9226 UniProtKB=Q15181	PPA1	pyrophosphatase(PC00121)
HUMAN HGNC=29207 UniProtKB=Q8N1G4	LRRC47	nucleic acid binding(PC00171);aminoacyl-tRNA synthetase(PC00142)
HUMAN HGNC=17068 UniProtKB=Q8WX93	PALLD	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);

HUMAN HGNC=14512 UniProtKB=Q92552	MRPS27	immunoglobulin superfamily cell adhesion molecule(PC00195) ribosomal protein(PC00171)
HUMAN HGNC=9391 UniProtKB=P13861	PRKAR2A	kinase modulator(PC00095)
HUMAN HGNC=9101 UniProtKB=P51805	PLXNA3	tyrosine protein kinase receptor(PC00220);signaling molecule(PC00137);tyrosine protein kinase receptor(PC00193);protein kinase(PC00233)
HUMAN HGNC=7708 UniProtKB=O75306	NDUFS2	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=3258 UniProtKB=P49770	EIF2B2	translation initiation factor(PC00171);isomerase(PC00031)
HUMAN HGNC=291 UniProtKB=P30566	ADSL	lyase(PC00144)
HUMAN HGNC=2311 UniProtKB=P14384	CPM	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=12515 UniProtKB=P15374	UCHL3	cysteine protease(PC00190);cysteine protease(PC00081)
HUMAN HGNC=6052 UniProtKB=P20839	IMPDH1	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=2900 UniProtKB=Q12959	DLG1	transmembrane receptor regulatory/adaptor protein(PC00226)
HUMAN HGNC=14499 UniProtKB=Q9Y2R9	MRPS7	ribosomal protein(PC00171)
HUMAN HGNC=18262 UniProtKB=Q8IWA4	MFN1	nucleotide phosphatase(PC00181);nucleotide phosphatase(PC00173)
HUMAN HGNC=1527 UniProtKB=Q03135	CAV1	transmembrane receptor regulatory/adaptor protein(PC00226);structural protein(PC00211);membrane traffic protein(PC00150);G-protein modulator(PC00095)
HUMAN HGNC=2673 UniProtKB=P51398	DAP3	ribosomal protein(PC00171)
HUMAN HGNC=1863 UniProtKB=P23141	CES1	esterase(PC00121);lipase(PC00097)
HUMAN HGNC=11153 UniProtKB=P14678	SNRPB	mRNA splicing factor(PC00171)
HUMAN HGNC=412 UniProtKB=P49189	ALDH9A1	dehydrogenase(PC00176)
HUMAN HGNC=19190 UniProtKB=Q96N67	DOCK7	guanyl-nucleotide exchange factor(PC00095)
HUMAN HGNC=8571 UniProtKB=Q9UNF0	PAC SIN2	membrane trafficking regulatory protein(PC00150);actin family cytoskeletal protein(PC00151)
HUMAN HGNC=343 UniProtKB=P23526	AHCY	hydrolase(PC00121)
HUMAN HGNC=10894 UniProtKB=O14744	PRMT5	signaling molecule(PC00207)
HUMAN HGNC=13233 UniProtKB=P39687	ANP32A	phosphatase inhibitor(PC00095)
HUMAN HGNC=14052 UniProtKB=P49406	MRPL19	ribosomal protein(PC00171)
HUMAN HGNC=12836 UniProtKB=Q9H0D6	XRN2	exoribonuclease(PC00171);nuclease(PC00031)
HUMAN HGNC=9238 UniProtKB=Q06203	PPAT	transferase(PC00220)
HUMAN HGNC=11740 UniProtKB=P02787	TF	transfer/carrier protein(PC00219);serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=2483 UniProtKB=Q05048	CSTF1	mRNA splicing factor(PC00171)
HUMAN HGNC=6110 UniProtKB=P46940	IQGAP1	G-protein modulator(PC00095)
HUMAN HGNC=17211 UniProtKB=Q92620	DHX38	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=19425 UniProtKB=Q96P70	IPO9	transporter(PC00227);small GTPase(PC00095)
HUMAN HGNC=16850 UniProtKB=Q6PD62	CTR9	

HUMAN HGNC=9393 UniProtKB=P17252	PRKCA	non-receptor serine/threonine protein kinase(PC00220);transfer/carrier protein(PC00137);non-receptor serine/threonine protein kinase(PC00193);annexin(PC00167);calmodulin(PC00219)
HUMAN HGNC=4124 UniProtKB=Q10471	GALNT2	glycosyltransferase(PC00220)
HUMAN HGNC=29866 UniProtKB=O94856	NFASC	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin;superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=20 UniProtKB=P49588	AARS	RNA binding protein(PC00171)
HUMAN HGNC=619 UniProtKB=Q9BQE5	APOL2	transporter(PC00227);apolipoprotein(PC00219)
HUMAN HGNC=9561 UniProtKB=P55036	PSMD4	enzyme modulator(PC00095)
HUMAN HGNC=8550 UniProtKB=Q9UQ80	PA2G4	transcription factor(PC00218);metalloprotease(PC00190);nucleic acid binding(PC00153);metalloprotease(PC00171)
HUMAN HGNC=5141 UniProtKB=P00738	HP	peptide hormone(PC00207);receptor(PC00179);serine protease(PC00197);serine protease(PC00190);protease inhibitor(PC00203);complement component(PC00121);annexin(PC00190);calmodulin(PC00203)
HUMAN HGNC=55 UniProtKB=O15439	ABCC4	ATP-binding cassette (ABC) transporter(PC00227)
HUMAN HGNC=24721 UniProtKB=Q9H6S0	YTHDC2	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=10498 UniProtKB=P05109	S100A8	signaling molecule(PC00207);calmodulin(PC00060)
HUMAN HGNC=5237 UniProtKB=P34932	HSPA4	Hsp70 family chaperone(PC00072)
HUMAN HGNC=6499 UniProtKB=P11279	LAMP1	membrane trafficking regulatory protein(PC00150)
HUMAN HGNC=25581 UniProtKB=A0AVT1	UBA6	transfer/carrier protein(PC00219);ligase(PC00142)
HUMAN HGNC=6950 UniProtKB=P33993	MCM7	DNA helicase(PC00171);helicase(PC00009);hydrolase(PC00011)
HUMAN HGNC=28242 UniProtKB=Q96IR7	HPDL	oxygenase(PC00176)
HUMAN HGNC=891 UniProtKB=Q9Y679	AUP1	acyltransferase(PC00220)
HUMAN HGNC=986 UniProtKB=P12694	BCKDHA	dehydrogenase(PC00176)
HUMAN HGNC=29260 UniProtKB=Q6PIU2	NCEH1	lipase(PC00121)
HUMAN HGNC=20454 UniProtKB=Q9H9Y6	RPA2	nucleotidyltransferase(PC00220);DNA-directed RNA polymerase(PC00174)
HUMAN HGNC=24627 UniProtKB=Q96PD2	DCBLD2	transporter(PC00227);apolipoprotein(PC00219);membrane-bound signaling molecule(PC00052);receptor(PC00207);metalloprotease(PC00152);serine protease(PC00197);oxidase(PC00190);metalloprotease(PC00153);serine protease(PC00203);extracellular matrix protein(PC00176);enzyme modulator(PC00175);cell adhesion molecule(PC00121)
HUMAN HGNC=6172 UniProtKB=P46977	STT3A	glycosyltransferase(PC00220)
HUMAN HGNC=5044 UniProtKB=P61978	HNRNPK,HN	mRNA splicing factor(PC00171);ribonucleoprotein(PC00031);enzyme modulator(PC00147)
HUMAN HGNC=12453 UniProtKB=Q01081	U2AF1	ribonucleoprotein(PC00171)
HUMAN HGNC=2495 UniProtKB=P56545	CTBP2	transcription cofactor(PC00218);dehydrogenase(PC00217)
HUMAN HGNC=29554 UniProtKB=Q9C0C9	UBE2O	
HUMAN HGNC=11362 UniProtKB=P42224	STAT1	transcription factor(PC00218);nucleic acid binding(PC00171)
HUMAN HGNC=18676 UniProtKB=Q86XP3	DDX42	RNA helicase(PC00171);helicase(PC00031)

HUMAN HGNC=3349 UniProtKB=P17813	ENG	TGF-beta receptor(PC00197)
HUMAN HGNC=29507 UniProtKB=Q9HB40	SCPEP1	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=3591 UniProtKB=Q9Y4F1	FARP1	guanyl-nucleotide exchange factor(PC00095)
HUMAN HGNC=29499 UniProtKB=Q6P179	ERAP2	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=2324 UniProtKB=Q10570	CPSF1	damaged DNA-binding protein(PC00171);mRNA polyadenylation factor(PC00009)
HUMAN HGNC=9465 UniProtKB=P11908	PRPS2	carbohydrate kinase(PC00220);nucleotide kinase(PC00137);ligase(PC00065);carbohydrate kinase(PC00172);nucleotide kinase(PC00142)
HUMAN HGNC=11312 UniProtKB=P19474	TRIM21	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=542 UniProtKB=P09525	ANXA4	
HUMAN HGNC=17349 UniProtKB=O43172	PRPF4	mRNA splicing factor(PC00171)
HUMAN HGNC=8876 UniProtKB=P17858	PFKL	carbohydrate kinase(PC00220);carbohydrate kinase(PC00137)
HUMAN HGNC=10317 UniProtKB=P62750	RPL23A	ribosomal protein(PC00171)
HUMAN HGNC=9554 UniProtKB=Q99460	PSMD1	enzyme modulator(PC00095)
HUMAN HGNC=25717 UniProtKB=Q9H857	NT5DC2	nucleotide phosphatase(PC00181);nucleotide phosphatase(PC00173)
HUMAN HGNC=6904 UniProtKB=P31153	MAT2A	nucleotidyltransferase(PC00220)
HUMAN HGNC=16946 UniProtKB=Q92791	LEPREL4	nucleic acid binding(PC00171);extracellular matrix protein(PC00102)
HUMAN HGNC=12437 UniProtKB=Q16881	TXNRD1	dehydrogenase(PC00176);oxidase(PC00092);reductase(PC00175)
HUMAN HGNC=10852 UniProtKB=P34897	SHMT2	methyltransferase(PC00220)
HUMAN HGNC=7154 UniProtKB=P08473	MME	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=24989 UniProtKB=Q9NZL4	HSPBP1	
HUMAN HGNC=11152 UniProtKB=P09661	SNRPA1	mRNA splicing factor(PC00171)
HUMAN HGNC=9564 UniProtKB=Q15008	PSMD6	
HUMAN HGNC=13164 UniProtKB=P62633	CNBP	nucleic acid binding(PC00171)
HUMAN HGNC=10487 UniProtKB=P60903	S100A10	signaling molecule(PC00207);calmodulin(PC00060)
HUMAN HGNC=30211 UniProtKB=Q709F0	ACAD11	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=17800 UniProtKB=Q9NSD9	FARSB	nucleic acid binding(PC00171);aminoacyl-tRNA synthetase(PC00142)
HUMAN HGNC=758 UniProtKB=P00966	ASS1	ligase(PC00142)
HUMAN HGNC=14480 UniProtKB=Q9NWU5	MRPL22	ribosomal protein(PC00171)
HUMAN HGNC=6953 UniProtKB=P15529	CD46	apolipoprotein(PC00219);receptor(PC00052);metalloprotease(PC00197);serine protease(PC00190);metalloprotease(PC00153);serine protease(PC00203);complement component(PC00121);celladhesionmolecule(PC00190)
HUMAN HGNC=11064 UniProtKB=Q92536	SLC7A6	amino acid transporter(PC00227)
HUMAN HGNC=12435 UniProtKB=P10599	TXN	oxidoreductase(PC00176)
HUMAN HGNC=10850 UniProtKB=P34896	SHMT1	methyltransferase(PC00220)
HUMAN HGNC=20194 UniProtKB=O15160	POLR1C	DNA-directed RNA polymerase(PC00171)

HUMAN HGNC=19685 UniProtKB=P49903	SEPHS1	transferase(PC00220)
HUMAN HGNC=6387 UniProtKB=Q07866	KLC1	transferase(PC00220);microtubule family cytoskeletal protein(PC00085)
HUMAN HGNC=28722 UniProtKB=Q5HYK3	COQ5	methyltransferase(PC00220)
HUMAN HGNC=9642 UniProtKB=P18031	PTPN1	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=14235 UniProtKB=Q9NRN7	AASDHPPPT	transferase(PC00220)
HUMAN HGNC=11766 UniProtKB=P01137	TGFB1	growth factor(PC00207)
HUMAN HGNC=11133 UniProtKB=O95721	SNAP29	SNARE protein(PC00150)
HUMAN HGNC=8011 UniProtKB=P78357	CNTNAP1	transporter(PC00227);apolipoprotein(PC00219);membrane-bound signaling molecule(PC00052);receptor(PC00207); metalloprotease(PC00152);serine protease(PC00197);oxidase(PC00190);metalloprotease(PC00153); serine protease(PC00203);extracellular matrix protein(PC00176);enzyme modulator(PC00175); cell adhesion molecule(PC00121)
HUMAN HGNC=24269 UniProtKB=Q9Y315	DERA	aldolase(PC00144)
HUMAN HGNC=9547 UniProtKB=P62191	PSMC1	hydrolase(PC00121)
HUMAN HGNC=5381 UniProtKB=P14735	IDE	metalloprotease(PC00190);reductase(PC00153);esterase(PC00176);metalloprotease(PC00198)
HUMAN HGNC=7944 UniProtKB=P20594	NPR2	adenylate cyclase(PC00144);guanylate cyclase(PC00079)
HUMAN HGNC=14376 UniProtKB=Q9BZG2	PPAT	phosphatase(PC00181);phosphatase(PC00121)
HUMAN HGNC=4392 UniProtKB=Q5JWF2	GNAS	
HUMAN HGNC=2174 UniProtKB=Q8IWV2	CNTN4	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124); immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=3700 UniProtKB=P07954	FH	lyase(PC00144)
HUMAN HGNC=30401 UniProtKB=Q8WVC0	LEO1	DNA-directed RNA polymerase(PC00171)
HUMAN HGNC=9257 UniProtKB=Q08752	PPID	isomerase(PC00135)
HUMAN HGNC=30857 UniProtKB=Q96DI7	SNRNP40	mRNA splicing factor(PC00171);esterase(PC00031);kinase inhibitor(PC00147)
HUMAN HGNC=17348 UniProtKB=O43395	PRPF3	mRNA splicing factor(PC00171)
HUMAN HGNC=11278 UniProtKB=O15270	SPTLC2	transaminase(PC00220)
HUMAN HGNC=20043 UniProtKB=Q8TEQ6	GEMIN5	receptor(PC00197)
HUMAN HGNC=7993 UniProtKB=Q9UHY1	NRBP1	non-receptor serine/threonine protein kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137)
HUMAN HGNC=11612 UniProtKB=P23193	TCEA1	transcription factor(PC00218);nucleic acid binding(PC00171)
HUMAN HGNC=33238 UniProtKB=Q6YP21	CCBL2	transaminase(PC00220)
HUMAN HGNC=25945 UniProtKB=Q9NXU5	ARL15	small GTPase(PC00095)
HUMAN HGNC=30168 UniProtKB=Q15084	PDIA6	
HUMAN HGNC=28911 UniProtKB=O60831	PRAF2	amino acid transporter(PC00227)
HUMAN HGNC=3355 UniProtKB=Q07075	ENPEP	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=4762 UniProtKB=P57053	H2BFS	histone(PC00171)

HUMAN HGNC=799 UniProtKB=P05023	ATP1A1	cation transporter(PC00227);ion channel(PC00068);hydrolase(PC00133)
HUMAN HGNC=12441 UniProtKB=P04818	TYMS	methyltransferase(PC00220)
HUMAN HGNC=23287 UniProtKB=O95571	ETHE1	hydrolase(PC00121)
HUMAN HGNC=1185 UniProtKB=Q9NQ88	TIGAR	mutase(PC00135)
HUMAN HGNC=8863 UniProtKB=O15067	PFAS	ligase(PC00142)
HUMAN HGNC=1136 UniProtKB=Q7KYR7	BTN2A1	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=6402 UniProtKB=O00410	IPO5	transporter(PC00227);transfer/carrier protein(PC00219);G-protein modulator(PC00095)
HUMAN HGNC=30858 UniProtKB=Q15029	EFTUD2	ribonucleoprotein(PC00171);translation elongation factor(PC00031);translation initiation factor(PC00201);hydrolase(PC00223);G-protein(PC00222)
HUMAN HGNC=9344 UniProtKB=P42785	PRCP	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=2739 UniProtKB=O60231	DHX16	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=10542 UniProtKB=O95248	SBF1	phosphatase(PC00181);phosphatase(PC00121)
HUMAN HGNC=3146 UniProtKB=P42892	ECE1	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=7629 UniProtKB=E9PAV3	NACA	basic helix-loop-helix transcription factor(PC00218)
HUMAN HGNC=10302 UniProtKB=P30050	RPL12	ribosomal protein(PC00171)
HUMAN HGNC=4666 UniProtKB=Q9Y5Q9	GTF3C3	transcription factor(PC00218)
HUMAN HGNC=18648 UniProtKB=Q86TI2	DPP9	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=91 UniProtKB=P45954	ACADS	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=3647 UniProtKB=P22830	FECH	
HUMAN HGNC=11186 UniProtKB=Q99523	SORT1	transporter(PC00227);receptor(PC00197)
HUMAN HGNC=3590 UniProtKB=Q12884	FAP	serine protease(PC00190);serine protease(PC00203);enzyme modulator(PC00121)
HUMAN HGNC=2744 UniProtKB=Q9NR30	DDX21	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=1620 UniProtKB=P40227	CCT6A	chaperonin(PC00072)
HUMAN HGNC=17717 UniProtKB=Q9UEW8	STK39	
HUMAN HGNC=4446 UniProtKB=O43292	GPAA1	
HUMAN HGNC=2555 UniProtKB=Q13620	CUL4B	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=8104 UniProtKB=Q16625	OCLN	transcription cofactor(PC00218);tight junction(PC00217)
HUMAN HGNC=4816 UniProtKB=P12081	HARS	RNA binding protein(PC00171);aminoacyl-tRNA synthetase(PC00031)
HUMAN HGNC=9599 UniProtKB=O14684	PTGES	isomerase(PC00135)
HUMAN HGNC=14981 UniProtKB=P51003	PAPOLA	mRNA polyadenylation factor(PC00171)
HUMAN HGNC=2481 UniProtKB=P01040	CSTA	cysteine protease inhibitor(PC00095)
HUMAN HGNC=877 UniProtKB=P49419	ALDH7A1	dehydrogenase(PC00176)
HUMAN HGNC=4163 UniProtKB=P22102	GART	transferase(PC00220);ligase(PC00142);hydrolase(PC00121)
HUMAN HGNC=3280 UniProtKB=P55884	EIF3B	translation initiation factor(PC00171)

HUMAN HGNC=7329 UniProtKB=P52701	MSH6	DNA binding protein(PC00171)
HUMAN HGNC=9644 UniProtKB=Q06124	PTPN11	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=10371 UniProtKB=P05388	RPLPO	ribosomal protein(PC00171)
HUMAN HGNC=3243 UniProtKB=Q9NZN4	EHD2	membrane traffic protein(PC00150);G-protein modulator(PC00095);calcium-binding protein(PC00022)
HUMAN HGNC=25237 UniProtKB=Q9H1E5	TMX4	
HUMAN HGNC=6834 UniProtKB=P27338	MAOB	DNA methyltransferase(PC00220);oxidase(PC00155);DNA binding protein(PC00013)
HUMAN HGNC=70 UniProtKB=Q8NE71	ABCF1	ATP-binding cassette (ABC) transporter(PC00227);translation elongation factor(PC00003);hydrolase(PC00171)
HUMAN HGNC=12826 UniProtKB=O43592	XPOT	RNA binding protein(PC00171)
HUMAN HGNC=2678 UniProtKB=P14868	DARS	RNA binding protein(PC00171);aminoacyl-tRNA synthetase(PC00031)
HUMAN HGNC=21556 UniProtKB=Q5TFE4	NT5DC1	nucleotide phosphatase(PC00181);nucleotide phosphatase(PC00173)
HUMAN HGNC=9650 UniProtKB=P17706	PTPN2	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=14278 UniProtKB=Q9BYD1	MRPL13	ribosomal protein(PC00171)
HUMAN HGNC=16673 UniProtKB=Q9BTT0	ANP32E	phosphatase inhibitor(PC00095)
HUMAN HGNC=12733 UniProtKB=Q9Y6W5	WASF2	non-motor actin binding protein(PC00085)
HUMAN HGNC=1774 UniProtKB=Q00535	CDK5	non-receptor serine/threonine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137);non-receptor serine/threonine protein kinase(PC00193);non-receptor tyrosine protein kinase(PC00167)
HUMAN HGNC=10382 UniProtKB=P04844	RPN2	glycosyltransferase(PC00220)
HUMAN HGNC=12663 UniProtKB=P19320	VCAM1	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=4199 UniProtKB=Q92616	GCN1L1	kinase modulator(PC00095)
HUMAN HGNC=26032 UniProtKB=Q7L5N7	LPCAT2	acyltransferase(PC00220);annexin(PC00042);calmodulin(PC00060)
HUMAN HGNC=25193 UniProtKB=Q6ZWT7	MBOAT2	acetyltransferase(PC00220)
HUMAN HGNC=2890 UniProtKB=O60832	DKC1	centromere DNA-binding protein(PC00171)
HUMAN HGNC=9847 UniProtKB=P43487	RANBP1	G-protein modulator(PC00095)
HUMAN HGNC=11476 UniProtKB=O15260	SURF4	transmembrane receptor regulatory/adaptor protein(PC00226);oxidase(PC00176)
HUMAN HGNC=11986 UniProtKB=P11387	TOP1	DNA topoisomerase(PC00171)
HUMAN HGNC=6720 UniProtKB=P02788	LTF	transfer/carrier protein(PC00219);serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=16435 UniProtKB=Q8TCT9	HM13	membrane-bound signaling molecule(PC00207);aspartic protease(PC00152);aspartic protease(PC00190)
HUMAN HGNC=23758 UniProtKB=Q8IUS5	EPHX4	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=678 UniProtKB=P52565	ARHGDIA	signaling molecule(PC00207);G-protein modulator(PC00095)
HUMAN HGNC=13731 UniProtKB=Q7L5Y9	MAEA	
HUMAN HGNC=32456 UniProtKB=Q2TAA5	ALG11	glycosyltransferase(PC00220);nucleotidyltransferase(PC00111);carbohydrate phosphatase(PC00174);carbohydrate phosphatase(PC00181)
HUMAN HGNC=3270 UniProtKB=O75822	EIF3J	translation initiation factor(PC00171)

HUMAN HGNC=10404 UniProtKB=P15880	RPS2	ribosomal protein(PC00171)
HUMAN HGNC=344 UniProtKB=O43865	AHCYL1	hydrolase(PC00121)
HUMAN HGNC=12877 UniProtKB=O75844	ZMPSTE24	metallopeptidase(PC00190); metalloprotease(PC00153)
HUMAN HGNC=30660 UniProtKB=Q9UBE0	SAE1	transfer/carrier protein(PC00219); ligase(PC00142)
HUMAN HGNC=327 UniProtKB=O00116	AGPS	transferase(PC00220); dehydrogenase(PC00176)
HUMAN HGNC=31104 UniProtKB=Q92614	MYO18A	G-protein modulator(PC00095); actin binding motor protein(PC00022); cell junction protein(PC00085)
HUMAN HGNC=4549 UniProtKB=Q13098	GPS1	
HUMAN HGNC=6159 UniProtKB=P56537	EIF6	translation initiation factor(PC00171)
HUMAN HGNC=17675 UniProtKB=Q9HAV4	XPO5	receptor(PC00197)
HUMAN HGNC=11057 UniProtKB=P30825	SLC7A1	amino acid transporter(PC00227)
HUMAN HGNC=7657 UniProtKB=O15394	NCAM2	immunoglobulin receptor superfamily(PC00197); protein phosphatase(PC00084); protein phosphatase(PC00124); immunoglobulin receptor superfamily(PC00181); immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=28958 UniProtKB=Q8N1F7	NUP93	transporter(PC00227)
HUMAN HGNC=856 UniProtKB=P21283	ATP6V1C1	ATP synthase(PC00227); hydrolase(PC00068)
HUMAN HGNC=7449 UniProtKB=Q13613	MTMR1	phosphatase(PC00181); phosphatase(PC00121)
HUMAN HGNC=4914 UniProtKB=P61086	UBE2K	
HUMAN HGNC=8071 UniProtKB=Q9UBU9	NXF1	RNA binding protein(PC00171)
HUMAN HGNC=30785 UniProtKB=Q9UHR5	SAP30BP	transcription factor(PC00218)
HUMAN HGNC=6984 UniProtKB=P23368	ME2	acyltransferase(PC00220); dehydrogenase(PC00042); decarboxylase(PC00176)
HUMAN HGNC=451 UniProtKB=Q9UHK6	AMACR	epimerase/racemase(PC00135)
HUMAN HGNC=9188 UniProtKB=P30876	POLR2B	nucleotidyltransferase(PC00220); DNA-directed RNA polymerase(PC00174)
HUMAN HGNC=12306 UniProtKB=Q14669	TRIP12	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=9467 UniProtKB=O60256	PRPSAP2	carbohydrate kinase(PC00220); nucleotide kinase(PC00137); ligase(PC00065); carbohydrate kinase(PC00172); nucleotide kinase(PC00142)
HUMAN HGNC=13780 UniProtKB=Q96RP9	GFM1	translation elongation factor(PC00171); translation initiation factor(PC00031); hydrolase(PC00223); G-protein(PC00222)
HUMAN HGNC=17097 UniProtKB=Q13868	EXOSC2	exoribonuclease(PC00171); nuclease(PC00031); esterase(PC00099)
HUMAN HGNC=12457 UniProtKB=Q16222	UAP1	nucleotidyltransferase(PC00220)
HUMAN HGNC=5215 UniProtKB=P56937	HSD17B7	dehydrogenase(PC00176); reductase(PC00092)
HUMAN HGNC=869 UniProtKB=Q04656	ATP7A	cation transporter(PC00227); ion channel(PC00068); hydrolase(PC00133)
HUMAN HGNC=19165 UniProtKB=O60343	TBC1D4	hydrolase(PC00121); G-protein modulator(PC00095)
HUMAN HGNC=20962 UniProtKB=Q9NT62	ATG3	ligase(PC00142)
HUMAN HGNC=6622 UniProtKB=P07098	LIPG	lipase(PC00121)
HUMAN HGNC=5244 UniProtKB=P38646	HSPA9	Hsp70 family chaperone(PC00072)
HUMAN HGNC=10329 UniProtKB=P46776	RPL27A	ribosomal protein(PC00171)

HUMAN HGNC=8648 UniProtKB=Q15366	PCBP2	mRNA splicing factor(PC00171);ribonucleoprotein(PC00031);enzyme modulator(PC00147)
HUMAN HGNC=19918 UniProtKB=Q6NSJ0	KIAA1161	glucosidase(PC00121)
HUMAN HGNC=13554 UniProtKB=Q8NB49	ATP11C	cation transporter(PC00227);hydrolase(PC00068)
HUMAN HGNC=11830 UniProtKB=P04183	TK1	nucleotide kinase(PC00220);nucleotide kinase(PC00137)
HUMAN HGNC=6937 UniProtKB=Q9HCC0	MCCC2	ligase(PC00142)
HUMAN HGNC=9413 UniProtKB=P78527	PRKDC	nucleotide kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137);nucleic acid binding(PC00172);nucleotide kinase(PC00193);non-receptor serine/threonine protein kinase(PC00167)
HUMAN HGNC=10452 UniProtKB=P31350	RRM2	reductase(PC00176)
HUMAN HGNC=9552 UniProtKB=P62195	PSMC5	hydrolase(PC00121)
HUMAN HGNC=6564 UniProtKB=Q08380	LGALS3BP	receptor(PC00197);serine protease(PC00190);oxidase(PC00203);serine protease(PC00176)
HUMAN HGNC=14348 UniProtKB=O43464	HTRA2	serine protease(PC00190);serine protease(PC00203);chaperone(PC00121)
HUMAN HGNC=15921 UniProtKB=Q9UKM9	RALY	mRNA processing factor(PC00171);ribonucleoprotein(PC00031)
HUMAN HGNC=9280 UniProtKB=P50336	PPOX	DNA methyltransferase(PC00220);oxidase(PC00155);DNA binding protein(PC00013)
HUMAN HGNC=30242 UniProtKB=Q13454	TUSC3	glycosyltransferase(PC00220)
HUMAN HGNC=9462 UniProtKB=P60891	PRPS1	carbohydrate kinase(PC00220);nucleotide kinase(PC00137);ligase(PC00065);carbohydrate kinase(PC00172);nucleotide kinase(PC00142)
HUMAN HGNC=8950 UniProtKB=P35237	SERPINB6	serine protease inhibitor(PC00095)
HUMAN HGNC=11831 UniProtKB=O00142	TK2	nucleotide kinase(PC00220);nucleotide kinase(PC00137)
HUMAN HGNC=2554 UniProtKB=Q13619	CUL4A	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=2529 UniProtKB=P07339	CTSD	aspartic protease(PC00190);aspartic protease(PC00053)
HUMAN HGNC=15714 UniProtKB=P42704	LRPPRC	transporter(PC00227);serine/threonine protein kinase receptor(PC00220);serine/threonine protein kinase receptor(PC00137);RNA binding protein(PC00193);protein kinase(PC00205)
HUMAN HGNC=18808 UniProtKB=Q9Y6E2	BZW2	translation initiation factor(PC00171);nuclease(PC00031)
HUMAN HGNC=21497 UniProtKB=Q9H845	ACAD9	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=15968 UniProtKB=Q8TB36	GDAP1	transferase(PC00220);signaling molecule(PC00207);reductase(PC00176);translation elongation factor(PC00198);epimerase/racemase(PC00171);cytoskeletal protein(PC00031)
HUMAN HGNC=10987 UniProtKB=O43808	SLC25A17	amino acid transporter(PC00227);mitochondrial carrier protein(PC00046);transfer/carrier protein(PC00158);ribosomal protein(PC00219);calmodulin(PC00171)
HUMAN HGNC=2698 UniProtKB=P11182	DBT	acyltransferase(PC00220);acyltransferase(PC00038)
HUMAN HGNC=2861 UniProtKB=P00374	DHFR	reductase(PC00176)
HUMAN HGNC=1555 UniProtKB=P45973	CBX5	transcription factor(PC00218);chromatin/chromatin-binding protein(PC00171)
HUMAN HGNC=753 UniProtKB=P08243	ASNS	ligase(PC00142)
HUMAN HGNC=10381 UniProtKB=P04843	RPN1	glycosyltransferase(PC00220)
HUMAN HGNC=1940 UniProtKB=P24386	RAE1	acyltransferase(PC00220);G-protein modulator(PC00042)

HUMAN HGNC=9081 UniProtKB=Q02809	PLOD1	oxygenase(PC00176)
HUMAN HGNC=15852 UniProtKB=Q8N6T3	ARFGAP1	nucleic acid binding(PC00171);G-protein modulator(PC00095)
HUMAN HGNC=31823 UniProtKB=Q5T749	KPRP	ligase(PC00142);microtubule family cytoskeletal protein(PC00085)
HUMAN HGNC=29523 UniProtKB=Q9Y6A4	C16orf80	transcription factor(PC00218);nuclease(PC00171)
HUMAN HGNC=19975 UniProtKB=Q8IZV5	RDH10	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=21406 UniProtKB=Q5T160	RARS2	
HUMAN HGNC=1189 UniProtKB=O95433	AHSA1	enzyme modulator(PC00095);chaperone(PC00072)
HUMAN HGNC=4227 UniProtKB=P50395	GDI2	acyltransferase(PC00220);G-protein modulator(PC00042)
HUMAN HGNC=15772 UniProtKB=Q9Y6D6	ARFGEF1	signaling molecule(PC00207);guanyl-nucleotide exchange factor(PC00095);cytoskeletal protein(PC00022)
HUMAN HGNC=3724 UniProtKB=Q14318	FKBP8	isomerase(PC00135);chaperone(PC00072);calcium-binding protein(PC00060)
HUMAN HGNC=67 UniProtKB=P28288	ABCD3	transporter(PC00227)
HUMAN HGNC=29652 UniProtKB=Q9BQA1	WDR77	receptor(PC00197)
HUMAN HGNC=243 UniProtKB=P35611	ADD1	non-motor actin binding protein(PC00085)
HUMAN HGNC=17697 UniProtKB=Q9NP81	SARS2	RNA binding protein(PC00171);aminoacyl-tRNA synthetase(PC00031)
HUMAN HGNC=17688 UniProtKB=P78346	RPP30	endoribonuclease(PC00171);nuclease(PC00031);hydrolase(PC00094)
HUMAN HGNC=2088 UniProtKB=O76031	CLPX	chaperone(PC00072)
HUMAN HGNC=30855 UniProtKB=O15042	SR140	mRNA processing factor(PC00171)
HUMAN HGNC=24624 UniProtKB=Q9H173	SIL1	
HUMAN HGNC=7605 UniProtKB=Q9UM54	MYO6	G-protein modulator(PC00095);actin binding motor protein(PC00022);cell junction protein(PC00085)
HUMAN HGNC=4189 UniProtKB=Q92947	GCDH	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=14632 UniProtKB=Q8N6G6	ATL1	metalloprotease(PC00190);metalloprotease(PC00153);extracellular matrix glycoprotein(PC00121);serine protease inhibitor(PC00190)
HUMAN HGNC=10274 UniProtKB=O75695	RP2	nucleotide kinase(PC00220);nucleotide kinase(PC00137)
HUMAN HGNC=29531 UniProtKB=Q6PKG0	LARP1	ribonucleoprotein(PC00171)
HUMAN HGNC=8905 UniProtKB=P36871	PGM1	glycosyltransferase(PC00220);mutase(PC00111)
HUMAN HGNC=9486 UniProtKB=P35030	PRSS3	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=4369 UniProtKB=O60547	GMDS	oxidoreductase(PC00176);dehydratase(PC00144);epimerase/racemase(PC00091)
HUMAN HGNC=854 UniProtKB=P21281	ATP6V1B2	ATP synthase(PC00227);anion channel(PC00068);ligand-gated ion channel(PC00002);ligand-gated ion channel(PC00133);DNA binding protein(PC00049);hydrolase(PC00141)
HUMAN HGNC=11387 UniProtKB=P31948	STIP1	chaperone(PC00072)
HUMAN HGNC=5014 UniProtKB=P30519	HMOX2	oxygenase(PC00176)
HUMAN HGNC=11760 UniProtKB=P10646	TFPI	serine protease inhibitor(PC00095)
HUMAN HGNC=6190 UniProtKB=P23458	JAK1	non-receptor tyrosine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137)
HUMAN HGNC=10537 UniProtKB=P49591	SARS	RNA binding protein(PC00171);aminoacyl-tRNA synthetase(PC00031)

HUMAN HGNC=11998 UniProtKB=P04637	TP53	transcription factor(PC00218)
HUMAN HGNC=4381 UniProtKB=Q14344	GNA13	heterotrimeric G-protein(PC00095)
HUMAN HGNC=20604 UniProtKB=Q9Y2L1	DIS3	endoribonuclease(PC00171);exoribonuclease(PC00031);nuclease(PC00094);hydrolase(PC00099)
HUMAN HGNC=171 UniProtKB=Q04771	ACVR1	serine/threonine protein kinase receptor(PC00220);TGF-beta receptor(PC00137); serine/threonine protein kinase receptor(PC00193);protein kinase(PC00205)
HUMAN HGNC=7434 UniProtKB=P13995	MTHFD2	dehydrogenase(PC00176);ligase(PC00092);hydrolase(PC00142)
HUMAN HGNC=33882 UniProtKB=Q9BT40	INPP5K	phosphatase(PC00181);phosphatase(PC00121)
HUMAN HGNC=8806 UniProtKB=P08559	PDHA1	dehydrogenase(PC00176)
HUMAN HGNC=11301 UniProtKB=P61011	SRP54	RNA binding protein(PC00171);G-protein(PC00031)
HUMAN HGNC=9567 UniProtKB=O00233	PSMD9	enzyme modulator(PC00095)
HUMAN HGNC=11572 UniProtKB=P26639	TARS	ligase(PC00142)
HUMAN HGNC=18189 UniProtKB=Q9NPD3	EXOSC4	nucleotidyltransferase(PC00220);exoribonuclease(PC00174);nuclease(PC00171);hydrolase(PC00031)
HUMAN HGNC=43 UniProtKB=Q03518	TAP1	ATP-binding cassette (ABC) transporter(PC00227)
HUMAN HGNC=28987 UniProtKB=Q92615	LARP4B	ribonucleoprotein(PC00171)
HUMAN HGNC=3214 UniProtKB=P13639	EEF2	translation elongation factor(PC00171);translation initiation factor(PC00031);hydrolase(PC00223);G-protein(PC00222)
HUMAN HGNC=9337 UniProtKB=P04280	PRB1	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=10442 UniProtKB=P46781	RPS9	ribosomal protein(PC00171)
HUMAN HGNC=8931 UniProtKB=P15735	PHKG2	non-receptor serine/threonine protein kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137)
HUMAN HGNC=11181 UniProtKB=P08294	SOD3	oxidoreductase(PC00176)
HUMAN HGNC=3061 UniProtKB=P23919	DTYMK	nucleotide kinase(PC00220);nucleotide kinase(PC00137)
HUMAN HGNC=12394 UniProtKB=O95801	TTC4	chaperone(PC00072)
HUMAN HGNC=4821 UniProtKB=O14929	HAT1	acetyltransferase(PC00220)
HUMAN HGNC=7411 UniProtKB=O94776	MTA2	chromatin/chromatin-binding protein(PC00171);histone(PC00009)
HUMAN HGNC=7882 UniProtKB=Q04721	NOTCH2	membrane-bound signaling molecule(PC00207);receptor(PC00152);defense/immunity protein(PC00197)
HUMAN HGNC=21022 UniProtKB=Q5JTZ9	AARS2	RNA binding protein(PC00171)
HUMAN HGNC=26006 UniProtKB=Q6DKK2	TTC19	
HUMAN HGNC=7658 UniProtKB=Q09161	NCBP1	mRNA splicing factor(PC00171)
HUMAN HGNC=1778 UniProtKB=P50613	CDK7	non-receptor serine/threonine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137); non-receptor serine/threonine protein kinase(PC00193);non-receptor tyrosine protein kinase(PC00167)
HUMAN HGNC=7994 UniProtKB=Q92823	NRCAM	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124); immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=16889 UniProtKB=O00487	PSMD14	transcription factor(PC00218)
HUMAN HGNC=987 UniProtKB=P21953	BCKDHB	transketolase(PC00220);dehydrogenase(PC00221);lyase(PC00176)
HUMAN HGNC=13917 UniProtKB=Q13838	DDX39B	RNA helicase(PC00171);helicase(PC00031)

HUMAN HGNC=4260 UniProtKB=P36269	GGT5	acyltransferase(PC00220);protease(PC00042);protease(PC00190)
HUMAN HGNC=5359 UniProtKB=Q14197	ICT1	translation release factor(PC00171)
HUMAN HGNC=3279 UniProtKB=Q99613	EIF3C	translation initiation factor(PC00171)
HUMAN HGNC=9852 UniProtKB=O95373	IPO7	transporter(PC00227);small GTPase(PC00095)
HUMAN HGNC=2867 UniProtKB=Q02127	DHODH	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=1491 UniProtKB=P47756	CAPZB	non-motor actin binding protein(PC00085)
HUMAN HGNC=2527 UniProtKB=P07858	CTSB	cysteine protease(PC00190);cysteine protease(PC00081)
HUMAN HGNC=4696 UniProtKB=P08236	GUSB	galactosidase(PC00121)
HUMAN HGNC=15912 UniProtKB=Q9UNZ2	NSFL1C	membrane trafficking regulatory protein(PC00150)
HUMAN HGNC=18682 UniProtKB=Q9H0S4	DDX47	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=10332 UniProtKB=P39023	RPL3	ribosomal protein(PC00171)
HUMAN HGNC=6823 UniProtKB=Q9UKM7	MAN1B1	chaperone(PC00072)
HUMAN HGNC=404 UniProtKB=P05091	ALDH2	dehydrogenase(PC00176)
HUMAN HGNC=4331 UniProtKB=O94925	GLS	hydrolase(PC00121)
HUMAN HGNC=10774 UniProtKB=P23246	SFPQ	mRNA splicing factor(PC00171)
HUMAN HGNC=10301 UniProtKB=P62913	RPL11	ribosomal protein(PC00171)
HUMAN HGNC=10353 UniProtKB=P36578	RPL4	
HUMAN HGNC=8052 UniProtKB=Q9UKK9	NUDT5	pyrophosphatase(PC00121)
HUMAN HGNC=18481 UniProtKB=Q9Y487	ATP6V0A2	ATP synthase(PC00227);hydrolase(PC00068)
HUMAN HGNC=6735 UniProtKB=P07948	LYN	non-receptor tyrosine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137)
HUMAN HGNC=8572 UniProtKB=Q9UKS6	PACSIN3	membrane trafficking regulatory protein(PC00150);actin family cytoskeletal protein(PC00151)
HUMAN HGNC=4748 UniProtKB=Q99880	HIST1H2BL	histone(PC00171)
HUMAN HGNC=2551 UniProtKB=Q13616	CUL1	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=2431 UniProtKB=P55060	CSE1L	transporter(PC00227);small GTPase(PC00095)
HUMAN HGNC=17822 UniProtKB=Q9H7Z7	PTGES2	reductase(PC00176)
HUMAN HGNC=11655 UniProtKB=P17987	TCP1	chaperonin(PC00072)
HUMAN HGNC=10440 UniProtKB=P62081	RPS7	ribosomal protein(PC00171)
HUMAN HGNC=15746 UniProtKB=Q15785	TOMM34	chaperone(PC00072)
HUMAN HGNC=19307 UniProtKB=Q7Z5N4	SDK1	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=30213 UniProtKB=Q9NQ11	ATP13A2	cation transporter(PC00227);ion channel(PC00068);hydrolase(PC00133)
HUMAN HGNC=11150 UniProtKB=P08621	SNRNP70	mRNA splicing factor(PC00171)
HUMAN HGNC=3014 UniProtKB=Q16555	DPYSL2	hydrolase(PC00121)
HUMAN HGNC=4456 UniProtKB=P43304	GPD2	dehydrogenase(PC00176)

HUMAN HGNC=13211 UniProtKB=P98194	ATP2C1	cation transporter(PC00227);ion channel(PC00068);hydrolase(PC00133)
HUMAN HGNC=20628 UniProtKB=Q9UI26	IPO11	transporter(PC00227);small GTPase(PC00095)
HUMAN HGNC=14631 UniProtKB=Q86TH1	ATL2	metalloprotease(PC00190);metalloprotease(PC00153);extracellular matrix glycoprotein(PC00121);serine protease inhibitor(PC00190)
HUMAN HGNC=28474 UniProtKB=Q9BWS9	CHID1	glycosidase(PC00121)
HUMAN HGNC=2158 UniProtKB=P09543	CNP	phosphodiesterase(PC00121)
HUMAN HGNC=29914 UniProtKB=P57740	NUP107	transporter(PC00227)
HUMAN HGNC=2747 UniProtKB=P26196	DDX6	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=9466 UniProtKB=Q14558	PRPSAP1	carbohydrate kinase(PC00220);nucleotide kinase(PC00137);ligase(PC00065);carbohydrate kinase(PC00172);nucleotide kinase(PC00142)
HUMAN HGNC=16384 UniProtKB=Q13263	TRIM28	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=692 UniProtKB=P40616	ARL1	small GTPase(PC00095)
HUMAN HGNC=7881 UniProtKB=P46531	NOTCH1	membrane-bound signaling molecule(PC00207);receptor(PC00152);defense/immunity protein(PC00197)
HUMAN HGNC=10767 UniProtKB=Q12874	SF3A3	mRNA splicing factor(PC00171)
HUMAN HGNC=10420 UniProtKB=P23396	RPS3	ribosomal protein(PC00171)
HUMAN HGNC=3274 UniProtKB=O75821	EIF3G	translation initiation factor(PC00171)
HUMAN HGNC=16863 UniProtKB=Q9NYF8	BCLAF1	transcription factor(PC00218)
HUMAN HGNC=10569 UniProtKB=P29508	SERPINB3	serine protease inhibitor(PC00095)
HUMAN HGNC=4248 UniProtKB=Q92820	GGH	cysteine protease(PC00190);cysteine protease(PC00081)
HUMAN HGNC=8583 UniProtKB=P05121	SERPINE1	serine protease inhibitor(PC00095)
HUMAN HGNC=12012 UniProtKB=P06753	TPM3	actin binding motor protein(PC00085)
HUMAN HGNC=2740 UniProtKB=Q92841	DDX17	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=10298 UniProtKB=P27635	RPL10	ribosomal protein(PC00171)
HUMAN HGNC=3213 UniProtKB=P26641	EEF1G	transferase(PC00220);signaling molecule(PC00207);reductase(PC00176);translation elongation factor(PC00198);epimerase/racemase(PC00171);cytoskeletal protein(PC00031)
HUMAN HGNC=3254 UniProtKB=Q9BY44	EIF2A	translation initiation factor(PC00171);nuclease(PC00031)
HUMAN HGNC=15508 UniProtKB=Q9Y606	PUS1	lyase(PC00144)
HUMAN HGNC=19954 UniProtKB=Q9H936	SLC25A22	amino acid transporter(PC00227);mitochondrial carrier protein(PC00046);transfer/carrier protein(PC00158);ribosomal protein(PC00219);calmodulin(PC00171)
HUMAN HGNC=395 UniProtKB=P13716	ALAD	dehydratase(PC00144)
HUMAN HGNC=5193 UniProtKB=Q7LGA3	HS2ST1	
HUMAN HGNC=3277 UniProtKB=P60228	EIF3E	translation initiation factor(PC00171)
HUMAN HGNC=10943 UniProtKB=Q15758	SLC1A5	cation transporter(PC00227)
HUMAN HGNC=500 UniProtKB=P15144	ANPEP	metalloprotease(PC00190);metalloprotease(PC00153)

HUMAN HGNC=693 UniProtKB=P36404	ARL2	small GTPase(PC00095)
HUMAN HGNC=3579 UniProtKB=P16930	FAH	isomerase(PC00135);hydrolase(PC00121)
HUMAN HGNC=4379 UniProtKB=P29992	GNA11	
HUMAN HGNC=9099 UniProtKB=Q9UIW2	PLXNA1	tyrosine protein kinase receptor(PC00220);signaling molecule(PC00137);tyrosine protein kinase receptor(PC00193);protein kinase(PC00233)
HUMAN HGNC=14580 UniProtKB=O15085	ARHGEF11	guanyl-nucleotide exchange factor(PC00095)
HUMAN HGNC=9970 UniProtKB=P35250	RFC2	nucleotidyltransferase(PC00220);DNA-directed DNA polymerase(PC00174)
HUMAN HGNC=17169 UniProtKB=Q13162	PRDX4	peroxidase(PC00176)
HUMAN HGNC=16944 UniProtKB=Q96I25	RBM17	mRNA processing factor(PC00171)
HUMAN HGNC=8140 UniProtKB=O60313	OPA1	hydrolase(PC00121);small GTPase(PC00095);microtubule family cytoskeletal protein(PC00020)
HUMAN HGNC=5385 UniProtKB=O43837	IDH3B	dehydrogenase(PC00176)
HUMAN HGNC=21616 UniProtKB=Q68CZ2	TNS3	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=8124 UniProtKB=Q02218	OGDH	
HUMAN HGNC=9603 UniProtKB=Q16647	PTGIS	oxidoreductase(PC00176);isomerase(PC00135)
HUMAN HGNC=8547 UniProtKB=O15460	P4HA2	hydroxylase(PC00176);oxygenase(PC00122)
HUMAN HGNC=4458 UniProtKB=P06744	GPI	isomerase(PC00135)
HUMAN HGNC=24281 UniProtKB=Q8N6M0	OTUD6B	protease(PC00190);nucleic acid binding(PC00171);protease(PC00121)
HUMAN HGNC=14456 UniProtKB=Q9BTM1	H2AFJ	histone(PC00171)
HUMAN HGNC=3365 UniProtKB=O75355	ENTPD3	nucleotide phosphatase(PC00181);nucleotide phosphatase(PC00173)
HUMAN HGNC=817 UniProtKB=P23634	ATP2B4	cation transporter(PC00227);ion channel(PC00068);hydrolase(PC00133)
HUMAN HGNC=30664 UniProtKB=Q9H078	CLPB	protease(PC00190);protease(PC00121);chaperone(PC00190)
HUMAN HGNC=12825 UniProtKB=O14980	XPO1	receptor(PC00197)
HUMAN HGNC=1476 UniProtKB=P07384	CAPN1	cysteine protease(PC00190);cysteine protease(PC00081);annexin(PC00121);calmodulin(PC00190)
HUMAN HGNC=8878 UniProtKB=Q01813	PFKP	carbohydrate kinase(PC00220);carbohydrate kinase(PC00137)
HUMAN HGNC=18138 UniProtKB=Q9Y262	EIF3L	translation initiation factor(PC00171)
HUMAN HGNC=4298 UniProtKB=P16278	GLB1	galactosidase(PC00121)
HUMAN HGNC=7715 UniProtKB=O00217	NDUFS8	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=16806 UniProtKB=O95071	UBR5	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=7637 UniProtKB=P55209	NAP1L1	phosphatase inhibitor(PC00095)
HUMAN HGNC=10362 UniProtKB=Q02878	RPL6	ribosomal protein(PC00171)
HUMAN HGNC=1455 UniProtKB=P27797	CALR	calcium-binding protein(PC00060)
HUMAN HGNC=5013 UniProtKB=P09601	HMOX1	oxygenase(PC00176)
HUMAN HGNC=14504 UniProtKB=P82914	MRPS15	ribosomal protein(PC00171)
HUMAN HGNC=3285 UniProtKB=P23588	EIF4B	translation initiation factor(PC00171)

HUMAN HGNC=12585 UniProtKB=P31930	UQCRC1	metalloprotease(PC00190);reductase(PC00153);esterase(PC00176);metalloprotease(PC00198)
HUMAN HGNC=1874 UniProtKB=P23528	CFL1	non-motor actin binding protein(PC00085)
HUMAN HGNC=11151 UniProtKB=P09012	SNRPA	mRNA splicing factor(PC00171)
HUMAN HGNC=11589 UniProtKB=P62380	TBPL1	transcription factor(PC00218);nucleic acid binding(PC00171)
HUMAN HGNC=16840 UniProtKB=Q9H944	MED20	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=16860 UniProtKB=Q15020	SART3	nuclease(PC00171)
HUMAN HGNC=24662 UniProtKB=Q9NQT4	EXOSC5	nucleotidyltransferase(PC00220);exoribonuclease(PC00174);nuclease(PC00171);hydrolase(PC00031)
HUMAN HGNC=16209 UniProtKB=Q9NQG5	RPRD1B	kinase inhibitor(PC00095)
HUMAN HGNC=30167 UniProtKB=P13667	PDIA4	
HUMAN HGNC=4617 UniProtKB=P49841	GSK3B	non-receptor serine/threonine protein kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137)
HUMAN HGNC=9559 UniProtKB=Q13200	PSMD2	enzyme modulator(PC00095)
HUMAN HGNC=7931 UniProtKB=O75607	NPM3	chaperone(PC00072)
HUMAN HGNC=16290 UniProtKB=Q9UPN9	TRIM33	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=3275 UniProtKB=O00303	EIF3F	translation initiation factor(PC00171)
HUMAN HGNC=14477 UniProtKB=Q9H0U6	MRPL18	ribosomal protein(PC00171)
HUMAN HGNC=12591 UniProtKB=P06132	UROD	methyltransferase(PC00220);reductase(PC00155);decarboxylase(PC00176)
HUMAN HGNC=20207 UniProtKB=Q6Y288	B3GALT1	glycosyltransferase(PC00220)
HUMAN HGNC=380 UniProtKB=P14550	AKR1A1	reductase(PC00176)
HUMAN HGNC=857 UniProtKB=P36543	ATP6V1E1	acyltransferase(PC00220)
HUMAN HGNC=8603 UniProtKB=O43252	PAPSS1	kinase(PC00220);nucleotidyltransferase(PC00137);kinase(PC00174)
HUMAN HGNC=16650 UniProtKB=Q9H9J2	MRPL44	endoribonuclease(PC00171);nuclease(PC00031)
HUMAN HGNC=2746 UniProtKB=P17844	DDX5	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=29367 UniProtKB=Q86VY4	TSPYL5	phosphatase inhibitor(PC00095);chaperone(PC00184)
HUMAN HGNC=28381 UniProtKB=Q8NHP6	MOSPD2	dehydrogenase(PC00176)
HUMAN HGNC=9855 UniProtKB=P62834	RAP1A	small GTPase(PC00095)
HUMAN HGNC=2301 UniProtKB=O75976	CPD	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=19073 UniProtKB=Q8NI27	THOC2	transcription cofactor(PC00218)
HUMAN HGNC=652 UniProtKB=P84077	ARF1	small GTPase(PC00095)
HUMAN HGNC=6038 UniProtKB=Q12906	ILF3	DNA binding protein(PC00171);RNA binding protein(PC00009);deaminase(PC00031);kinase activator(PC00121);defense/immunity protein(PC00088)
HUMAN HGNC=2087 UniProtKB=O96005	CLPTM1	lyase(PC00144)
HUMAN HGNC=15465 UniProtKB=Q9NQX3	GPHN	
HUMAN HGNC=4739 UniProtKB=P16104	H2AFX	histone(PC00171)
HUMAN HGNC=14886 UniProtKB=Q9UDY4	DNAJB4	chaperonin(PC00072)

HUMAN HGNC=2715 UniProtKB=O94760	DDAH1	hydrolase(PC00121)
HUMAN HGNC=16985 UniProtKB=Q9BTZ2	DHRS4	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=30244 UniProtKB=Q6P1A2	LPCAT3	acyltransferase(PC00220)
HUMAN HGNC=543 UniProtKB=P08758	ANXA5,Anxa5	
HUMAN HGNC=4559 UniProtKB=Q96SL4	GPX7	peroxidase(PC00176)
HUMAN HGNC=9565 UniProtKB=P51665	PSMD7	
HUMAN HGNC=26511 UniProtKB=O14558	HSPB6	chaperone(PC00072)
HUMAN HGNC=12562 UniProtKB=Q9BZX2	UCK2	glycosyltransferase(PC00220);nucleotide kinase(PC00111);nucleotide kinase(PC00137)
HUMAN HGNC=24185 UniProtKB=P46736	BRCC3	transcription factor(PC00218)
HUMAN HGNC=17273 UniProtKB=Q9NS87	KIF15	microtubule binding motor protein(PC00085)
HUMAN HGNC=14290 UniProtKB=Q8NFZ4	NLGN2	esterase(PC00121);lipase(PC00097)
HUMAN HGNC=15853 UniProtKB=Q9Y6D5	ARFGEF2	signaling molecule(PC00207);guanyl-nucleotide exchange factor(PC00095);cytoskeletal protein(PC00022)
HUMAN HGNC=7989 UniProtKB=P01111	NRAS	small GTPase(PC00095)
HUMAN HGNC=20289 UniProtKB=Q8N752	CSNK1A1L	non-receptor serine/threonine protein kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137)
HUMAN HGNC=1682 UniProtKB=Q08722	CD47	immunoglobulin receptor superfamily(PC00197);guanyl-nucleotide exchange factor(PC00084); immunoglobulin receptor superfamily(PC00124);cell adhesion molecule(PC00095)
HUMAN HGNC=4837 UniProtKB=P53701	HCCS	lyase(PC00144)
HUMAN HGNC=20880 UniProtKB=Q86UL3	AGPAT6	acyltransferase(PC00220);annexin(PC00042);calmodulin(PC00060)
HUMAN HGNC=9189 UniProtKB=P19387	POLR2C	DNA-directed RNA polymerase(PC00171)
HUMAN HGNC=10451 UniProtKB=P23921	RRM1	reductase(PC00176)
HUMAN HGNC=3259 UniProtKB=Q9NR50	EIF2B3	nucleotidyltransferase(PC00220);translation initiation factor(PC00174);guanyl-nucleotide exchange factor(PC00171)
HUMAN HGNC=10424 UniProtKB=P62701	RPS4X	ribosomal protein(PC00171)
HUMAN HGNC=15987 UniProtKB=O76003	GLRX3	reductase(PC00176)
HUMAN HGNC=3278 UniProtKB=O15371	EIF3D	translation initiation factor(PC00171)
HUMAN HGNC=23576 UniProtKB=Q86VS8	HOOK3	membrane traffic protein(PC00150);kinase modulator(PC00095)
HUMAN HGNC=9278 UniProtKB=O15355	PPM1G	protein phosphatase(PC00181);protein phosphatase(PC00195);kinase inhibitor(PC00121)
HUMAN HGNC=292 UniProtKB=P30520	ADSS	ligase(PC00142)
HUMAN HGNC=1780 UniProtKB=P50750	CDK9	non-receptor serine/threonine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137); non-receptor serine/threonine protein kinase(PC00193);non-receptor tyrosine protein kinase(PC00167)
HUMAN HGNC=28867 UniProtKB=Q9Y6M1	IGF2BP2	mRNA splicing factor(PC00171);ribonucleoprotein(PC00031);enzyme modulator(PC00147)
HUMAN HGNC=19072 UniProtKB=Q96J01	THOC3	RNA binding protein(PC00171)
HUMAN HGNC=15607 UniProtKB=Q14155	ARHGEF7	signaling molecule(PC00207);guanyl-nucleotide exchange factor(PC00095)
HUMAN HGNC=7643 UniProtKB=O43776	NARS	RNA binding protein(PC00171);aminoacyl-tRNA synthetase(PC00031)
HUMAN HGNC=3009 UniProtKB=P27487	DPP4	serine protease(PC00190);serine protease(PC00203);enzyme modulator(PC00121)

HUMAN HGNC=4729 UniProtKB=P20671	HIST1H2AD	histone(PC00171)
HUMAN HGNC=23166 UniProtKB=Q8TCS8	PNPT1	nucleotidyltransferase(PC00220);exoribonuclease(PC00174);nuclease(PC00171);esterase(PC00031)
HUMAN HGNC=3482 UniProtKB=P38117	ETFB	hydroxylase(PC00176)
HUMAN HGNC=9683 UniProtKB=Q92729	PTPRU	receptor(PC00197);protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=12651 UniProtKB=P26640	VARS	aminoacyl-tRNA synthetase(PC00142)
HUMAN HGNC=8829 UniProtKB=Q9BRX2	PELO	translation release factor(PC00171);nuclease(PC00031)
HUMAN HGNC=10383 UniProtKB=P46783	RPS10	ribosomal protein(PC00171)
HUMAN HGNC=24305 UniProtKB=Q15021	NCAPD2	nucleic acid binding(PC00171)
HUMAN HGNC=28204 UniProtKB=Q9BSD7	NTPCR	kinase(PC00220);kinase(PC00137)
HUMAN HGNC=2753 UniProtKB=Q16698	DEC1	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=19129 UniProtKB=Q9Y617	PSAT1	transaminase(PC00220)
HUMAN HGNC=4656 UniProtKB=Q13888	GTF2H2	transcription factor(PC00218)
HUMAN HGNC=8965 UniProtKB=Q92643	PIGK	transferase(PC00220)
HUMAN HGNC=21524 UniProtKB=Q9Y394	DHRS7	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=57 UniProtKB=O95255	ABCC6	ATP-binding cassette (ABC) transporter(PC00227)
HUMAN HGNC=384 UniProtKB=Q04828	AKR1C1	reductase(PC00176)
HUMAN HGNC=6535 UniProtKB=P00338	LDHA	dehydrogenase(PC00176)
HUMAN HGNC=10325 UniProtKB=P83731	RPL24	ribosomal protein(PC00171)
HUMAN HGNC=9549 UniProtKB=P17980	PSMC3	hydrolase(PC00121)
HUMAN HGNC=9314 UniProtKB=Q08209	PPP3CA	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=9664 UniProtKB=P18433	PTPRA	transmembrane receptor regulatory/adaptor protein(PC00226);receptor(PC00197);protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=10980 UniProtKB=Q9UBX3	SLC25A10	amino acid transporter(PC00227);mitochondrial carrier protein(PC00046);transfer/carrier protein(PC00158);ribosomal protein(PC00219);calmodulin(PC00171)
HUMAN HGNC=10565 UniProtKB=O14828	SCAMP3	transferase(PC00220);transfer/carrier protein(PC00219)
HUMAN HGNC=12420 UniProtKB=P49411	TUFM	translation elongation factor(PC00171);translation initiation factor(PC00031);hydrolase(PC00223);G-protein(PC00222)
HUMAN HGNC=92 UniProtKB=P49748	ACADVL	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=11041 UniProtKB=Q9Y289	SLC5A6	carbohydrate transporter(PC00227);cation transporter(PC00067)
HUMAN HGNC=5043 UniProtKB=P31942	HNRNPH3	ribosomal protein(PC00171)
HUMAN HGNC=8647 UniProtKB=Q15365	PCBP1	mRNA splicing factor(PC00171);ribonucleoprotein(PC00031);enzyme modulator(PC00147)
HUMAN HGNC=3242 UniProtKB=Q9H4M9	EHD1	membrane traffic protein(PC00150);G-protein modulator(PC00095);calcium-binding protein(PC00022)
HUMAN HGNC=27288 UniProtKB=Q4G176	ACSF3	dehydrogenase(PC00176);ligase(PC00092)
HUMAN HGNC=16877 UniProtKB=O95140	MFN2	nucleotide phosphatase(PC00181);nucleotide phosphatase(PC00173)
HUMAN HGNC=6518 UniProtKB=Q14739	LBR	receptor(PC00197);reductase(PC00176)

HUMAN HGNC=16945 UniProtKB=Q9H074	PAIP1	RNA binding protein(PC00171)
HUMAN HGNC=25541 UniProtKB=P57088	TMEM33	
HUMAN HGNC=7037 UniProtKB=P08582	MFI2	transfer/carrier protein(PC00219);serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=16049 UniProtKB=Q15185	PTGES3	chaperone(PC00072)
HUMAN HGNC=3078 UniProtKB=P33316	DUT	phosphatase(PC00181);phosphatase(PC00121)
HUMAN HGNC=11003 UniProtKB=Q99808	SLC29A1	transporter(PC00227)
HUMAN HGNC=22960 UniProtKB=Q8NBQ5	HSD17B11	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=14479 UniProtKB=Q7Z2W9	MRPL21	ribosomal protein(PC00171)
HUMAN HGNC=12016 UniProtKB=P29144	TPP2	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=24656 UniProtKB=Q9UBQ5	EIF3K	
HUMAN HGNC=16653 UniProtKB=Q96GC5	MRPL48	ribosomal protein(PC00171)
HUMAN HGNC=30688 UniProtKB=Q86VP6	CAND1	transcription factor(PC00218)
HUMAN HGNC=30178 UniProtKB=Q9Y570	PPME1	esterase(PC00121)
HUMAN HGNC=9972 UniProtKB=P35249	RFC4	nucleotidyltransferase(PC00220);DNA-directed DNA polymerase(PC00174)
HUMAN HGNC=12491 UniProtKB=P61081	UBE2M	
HUMAN HGNC=537 UniProtKB=P07355	ANXA2	
HUMAN HGNC=27229 UniProtKB=Q86W74	ANKRD46	non-receptor serine/threonine protein kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137)
HUMAN HGNC=14258 UniProtKB=Q9Y5K6	CD2AP	signaling molecule(PC00207)
HUMAN HGNC=11834 UniProtKB=P29401	TKT	transketolase(PC00220);dehydrogenase(PC00221);lyase(PC00176)
HUMAN HGNC=11316 UniProtKB=P05455	SSB	ribonucleoprotein(PC00171)
HUMAN HGNC=2191 UniProtKB=Q05707	COL14A1	transporter(PC00227);receptor(PC00197)
HUMAN HGNC=10441 UniProtKB=P62241	RPS8	ribosomal protein(PC00171)
HUMAN HGNC=115 UniProtKB=P53396	ACLY	transferase(PC00220);lyase(PC00144);ligase(PC00142)
HUMAN HGNC=8923 UniProtKB=O43175	PHGDH	dehydrogenase(PC00176)
HUMAN HGNC=10768 UniProtKB=O75533	SF3B1	mRNA splicing factor(PC00171)
HUMAN HGNC=11087 UniProtKB=O75094	SLIT3	receptor(PC00197);extracellular matrix protein(PC00102)
HUMAN HGNC=14651 UniProtKB=O43447	PPIH	isomerase(PC00135)
HUMAN HGNC=1462 UniProtKB=Q13557	CAMK2D	non-receptor serine/threonine protein kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137)
HUMAN HGNC=15566 UniProtKB=Q9H0C8	ILKAP	protein phosphatase(PC00181);protein phosphatase(PC00195);kinase inhibitor(PC00121)
HUMAN HGNC=403 UniProtKB=P51648	ALDH3A2	dehydrogenase(PC00176)
HUMAN HGNC=1151 UniProtKB=O43684	BUB3	RNA binding protein(PC00171)
HUMAN HGNC=1913 UniProtKB=P18754	RCC1	chromatin/chromatin-binding protein(PC00171);guanyl-nucleotide exchange factor(PC00009)
HUMAN HGNC=3282 UniProtKB=P60842	EIF4A1	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=8005 UniProtKB=O60462	NRP2	transporter(PC00227);apolipoprotein(PC00219);membrane-bound signaling molecule(PC00052);receptor(PC00207);

HUMAN HGNC=9557 UniProtKB=O00232	PSMD12	metalloprotease(PC00152);serine protease(PC00197);oxidase(PC00190);metalloprotease(PC00153);serine protease(PC00203);extracellular matrix protein(PC00176);enzyme modulator(PC00175);cell adhesion molecule(PC00121)
HUMAN HGNC=16919 UniProtKB=Q99536	VAT1	enzyme modulator(PC00095)
HUMAN HGNC=11177 UniProtKB=P35610	SOAT1	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=14277 UniProtKB=Q9BYD2	MRPL9	acyltransferase(PC00220)
HUMAN HGNC=11821 UniProtKB=P16035	TIMP2	ribosomal protein(PC00171)
HUMAN HGNC=10299 UniProtKB=P62906	RPL10A	metalloprotease inhibitor(PC00095)
HUMAN HGNC=16760 UniProtKB=Q9H9Q2	COPS7B	ribosomal protein(PC00171)
HUMAN HGNC=24718 UniProtKB=Q96JJ7	TMX3	
HUMAN HGNC=714 UniProtKB=P15848	ARSB	hydrolase(PC00121)
HUMAN HGNC=3481 UniProtKB=P13804	ETFA	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=8527 UniProtKB=P55809	OXCT1	transferase(PC00220)
HUMAN HGNC=20797 UniProtKB=Q53TN4	CYBRD1	reductase(PC00176)
HUMAN HGNC=12303 UniProtKB=O75962	TRIO	signaling molecule(PC00207);guanyl-nucleotide exchange factor(PC00095)
HUMAN HGNC=9673 UniProtKB=Q12913	PTPRJ	receptor(PC00197);protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=9669 UniProtKB=P23469	PTPRE	transmembrane receptor regulatory/adaptor protein(PC00226);receptor(PC00197);protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=977 UniProtKB=O15382	BCAT2	transaminase(PC00220)
HUMAN HGNC=20320 UniProtKB=Q8WXF1	PSPC1	mRNA splicing factor(PC00171)
HUMAN HGNC=3570 UniProtKB=O95573	ACSL3	ligase(PC00142)
HUMAN HGNC=11026 UniProtKB=P08195	SLC3A2	amylase(PC00121)
HUMAN HGNC=17340 UniProtKB=Q6P2Q9	PRPF8	mRNA splicing factor(PC00171)
HUMAN HGNC=8848 UniProtKB=O00541	PES1	ribosomal protein(PC00171)
HUMAN HGNC=14263 UniProtKB=Q9ULC3	RAB23	
HUMAN HGNC=9323 UniProtKB=O00743	PPP6C	protein phosphatase(PC00181);protein phosphatase(PC00195);calcium-binding protein(PC00121)
HUMAN HGNC=25250 UniProtKB=Q9BRR6	ADPGK	kinase(PC00220);kinase(PC00137)
HUMAN HGNC=4181 UniProtKB=Q92538	GBF1	signaling molecule(PC00207);guanyl-nucleotide exchange factor(PC00095);cytoskeletal protein(PC00022)
HUMAN HGNC=16931 UniProtKB=Q9Y4L1	HYOU1	Hsp70 family chaperone(PC00072)
HUMAN HGNC=26639 UniProtKB=Q8NBI6	XXYLT1	glycosyltransferase(PC00220)
HUMAN HGNC=1623 UniProtKB=P50990	CCT8	chaperonin(PC00072)
HUMAN HGNC=19308 UniProtKB=Q58EX2	SDK2	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)

HUMAN HGNC=865 UniProtKB=Q93050	ATP6V0A1	ATP synthase(PC00227)
HUMAN HGNC=3697 UniProtKB=P09769	FGR	non-receptor tyrosine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137)
HUMAN HGNC=14198 UniProtKB=Q9BQ52	ELAC2	hydrolase(PC00121)
HUMAN HGNC=11063 UniProtKB=Q01650	SLC7A5	amino acid transporter(PC00227)
HUMAN HGNC=16495 UniProtKB=Q9NRY6	PLS3	transfer/carrier protein(PC00219)
HUMAN HGNC=5959 UniProtKB=O95163	IKBKAP	kinase activator(PC00095)
HUMAN HGNC=6167 UniProtKB=P19823	ITIH2	serine protease inhibitor(PC00095)
HUMAN HGNC=2494 UniProtKB=Q13363	CTBP1	transcription cofactor(PC00218);dehydrogenase(PC00217)
HUMAN HGNC=6702 UniProtKB=Q32MZ4	LRRFIP1	transcription cofactor(PC00218);RNA binding protein(PC00217)
HUMAN HGNC=17856 UniProtKB=Q9UJ83	HAACL1	transferase(PC00220);dehydrogenase(PC00176);decarboxylase(PC00092)
HUMAN HGNC=4259 UniProtKB=Q9UJ14	GGT7	acyltransferase(PC00220);protease(PC00042);protease(PC00190)
HUMAN HGNC=9888 UniProtKB=Q15291	RBBP5	mRNA splicing factor(PC00171);esterase(PC00031);kinase inhibitor(PC00147)
HUMAN HGNC=11778 UniProtKB=P21980	TGM2	acyltransferase(PC00220)
HUMAN HGNC=28157 UniProtKB=Q53EU6	AGPAT9	acyltransferase(PC00220);annexin(PC00042);calmodulin(PC00060)
HUMAN HGNC=4141 UniProtKB=P04406	GAPDH	dehydrogenase(PC00176)
HUMAN HGNC=25542 UniProtKB=Q2NL82	TSR1	
HUMAN HGNC=24249 UniProtKB=Q9Y2Z4	YARS2	nucleic acid binding(PC00171);aminoacyl-tRNA synthetase(PC00142)
HUMAN HGNC=553 UniProtKB=Q06278	AOX1	dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=30297 UniProtKB=Q9P258	RCC2	chromatin/chromatin-binding protein(PC00171);guanyl-nucleotide exchange factor(PC00009)
HUMAN HGNC=11773 UniProtKB=P37173	TGFBR2	serine/threonine protein kinase receptor(PC00220);TGF-beta receptor(PC00137); serine/threonine protein kinase receptor(PC00193);protein kinase(PC00205)
HUMAN HGNC=315 UniProtKB=Q9Y4W6	AFG3L2	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=2553 UniProtKB=Q13618	CUL3	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=1553 UniProtKB=Q13185	CBX3	transcription factor(PC00218);chromatin/chromatin-binding protein(PC00171)
HUMAN HGNC=16369 UniProtKB=Q99497	PARK7	transcription factor(PC00218);cysteine protease(PC00190);RNA binding protein(PC00081);cysteine protease(PC00171)
HUMAN HGNC=25994 UniProtKB=Q08J23	NSUN2	methyltransferase(PC00220);nucleic acid binding(PC00155)
HUMAN HGNC=10061 UniProtKB=Q99496	RNF2	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=10702 UniProtKB=Q15437	SEC23B	G-protein modulator(PC00095)
HUMAN HGNC=10312 UniProtKB=P84098	RPL19	ribosomal protein(PC00171)
HUMAN HGNC=2446 UniProtKB=P07498	CASK	
HUMAN HGNC=16702 UniProtKB=Q9BT78	COPS4	
HUMAN HGNC=20716 UniProtKB=Q9H0B6	KLC2	transferase(PC00220);microtubule family cytoskeletal protein(PC00085)
HUMAN HGNC=13398 UniProtKB=Q15738	NSDHL	oxidoreductase(PC00176);dehydratase(PC00144);epimerase/racemase(PC00091)
HUMAN HGNC=27302 UniProtKB=Q5T440	IBA57	

HUMAN HGNC=6656 UniProtKB=Q9UIQ6	LNPEP	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=30076 UniProtKB=Q9BUI4	POLR3C	DNA-directed RNA polymerase(PC00171)
HUMAN HGNC=10074 UniProtKB=P13489	RNH1	transcription cofactor(PC00218);nucleic acid binding(PC00217)
HUMAN HGNC=5246 UniProtKB=P04792	HSPB1	chaperone(PC00072)
HUMAN HGNC=17264 UniProtKB=O95602	RPA1	nucleotidyltransferase(PC00220);DNA-directed RNA polymerase(PC00174)
HUMAN HGNC=9119 UniProtKB=O75439	PMPCB	metalloprotease(PC00190);reductase(PC00153);esterase(PC00176);metalloprotease(PC00198)
HUMAN HGNC=8021 UniProtKB=P21589	NT5E	nucleotide phosphatase(PC00181);nucleotide phosphatase(PC00173);phosphodiesterase(PC00121)
HUMAN HGNC=29929 UniProtKB=Q8NFH4	NUP37	transfer/carrier protein(PC00219)
HUMAN HGNC=1078 UniProtKB=Q13873	BMPR2	serine/threonine protein kinase receptor(PC00220);TGF-beta receptor(PC00137); serine/threonine protein kinase receptor(PC00193);protein kinase(PC00205)
HUMAN HGNC=976 UniProtKB=P54687	BCAT1	transaminase(PC00220)
HUMAN HGNC=941 UniProtKB=Q9UL15	BAG5	chaperone(PC00072)
HUMAN HGNC=9558 UniProtKB=Q9UNM6	PSMD13	enzyme modulator(PC00095)
HUMAN HGNC=13280 UniProtKB=Q96HE7	ERO1L	oxidoreductase(PC00176)
HUMAN HGNC=11542 UniProtKB=Q16594	TAF9	transcription factor(PC00218);nucleic acid binding(PC00171)
HUMAN HGNC=18311 UniProtKB=Q9BS26	ERP44	
HUMAN HGNC=24007 UniProtKB=Q5T9A4	ATAD3B	hydrolase(PC00121)
HUMAN HGNC=9751 UniProtKB=P47897	QARS	ligase(PC00142)
HUMAN HGNC=1118 UniProtKB=Q10588	BST1	cyclase(PC00144);glycosidase(PC00079)
HUMAN HGNC=1237 UniProtKB=Q9NRR5	UBQLN4	
HUMAN HGNC=6368 UniProtKB=P49862	KLK7	peptide hormone(PC00207);receptor(PC00179);serine protease(PC00197);serine protease(PC00190); protease inhibitor(PC00203);annexin(PC00121);calmodulin(PC00190)
HUMAN HGNC=794 UniProtKB=P31939	ATIC	methyltransferase(PC00220);hydrolase(PC00155)
HUMAN HGNC=23159 UniProtKB=Q9H553	ALG2	glycosyltransferase(PC00220);nucleotidyltransferase(PC00111);carbohydrate phosphatase(PC00174);carbohydrate phosphatase(PC00181)
HUMAN HGNC=7596 UniProtKB=O43795	MYO1B	G-protein modulator(PC00095);actin binding motor protein(PC00022);cell junction protein(PC00085)
HUMAN HGNC=30611 UniProtKB=Q8TCJ2	STT3B	glycosyltransferase(PC00220)
HUMAN HGNC=18173 UniProtKB=Q9NZ08	ERAP1	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=544 UniProtKB=P08133	ANXA6	
HUMAN HGNC=17103 UniProtKB=Q9Y5L0	TNPO3	transporter(PC00227)
HUMAN HGNC=1479 UniProtKB=P17655	CAPN2	cysteine protease(PC00190);cysteine protease(PC00081);annexin(PC00121);calmodulin(PC00190)
HUMAN HGNC=3069 UniProtKB=P51452	DUSP3	
HUMAN HGNC=3296 UniProtKB=Q04637	EIF4G1	translation initiation factor(PC00171)
HUMAN HGNC=9376 UniProtKB=Q13131	PRKAA1	non-receptor serine/threonine protein kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137)
HUMAN HGNC=5276 UniProtKB=O43719	HTATSF1	mRNA splicing factor(PC00171)

HUMAN HGNC=9896 UniProtKB=P98175	RBM10	RNA binding protein(PC00171)
HUMAN HGNC=18167 UniProtKB=Q9NZW5	MPP6	nucleotide kinase(PC00220);nucleotide kinase(PC00137);cell junction protein(PC00172)
HUMAN HGNC=29526 UniProtKB=Q0VDF9	HSPA14	Hsp70 family chaperone(PC00072)
HUMAN HGNC=1318 UniProtKB=P01024	C3	cytokine(PC00207);serine protease inhibitor(PC00083);complement component(PC00095)
HUMAN HGNC=704 UniProtKB=O15143	ARPC1B	actin family cytoskeletal protein(PC00085)
HUMAN HGNC=11313 UniProtKB=P10155	TROVE2	RNA binding protein(PC00171)
HUMAN HGNC=2750 UniProtKB=Q08211	DHX9	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=1076 UniProtKB=P36894	BMPR1A	serine/threonine protein kinase receptor(PC00220);TGF-beta receptor(PC00137);serine/threonine protein kinase receptor(PC00193);proteinkinase(PC00205)
HUMAN HGNC=7754 UniProtKB=Q92859	NEO1	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=3571 UniProtKB=O60488	ACSL4	ligase(PC00142)
HUMAN HGNC=5042 UniProtKB=P55795	HNRNPH2	ribosomal protein(PC00171)
HUMAN HGNC=9719 UniProtKB=P50542	PEX5	receptor(PC00197);membrane trafficking regulatory protein(PC00150)
HUMAN HGNC=9251 UniProtKB=P10619	CTSA	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=10306 UniProtKB=P61313	RPL15	ribosomal protein(PC00171)
HUMAN HGNC=18667 UniProtKB=Q10713	PMPCA	metalloprotease(PC00190);reductase(PC00153);esterase(PC00176);metalloprotease(PC00198)
HUMAN HGNC=3594 UniProtKB=P49327	FASN,FAS	acyltransferase(PC00220);methyltransferase(PC00042);dehydrogenase(PC00155);ligase(PC00176);esterase(PC00092)
HUMAN HGNC=10675 UniProtKB=Q99470	SDF2	glycosyltransferase(PC00220)
HUMAN HGNC=2859 UniProtKB=Q15392	DHCR24	reductase(PC00176)
HUMAN HGNC=664 UniProtKB=P78540	ARG2	hydrolase(PC00121)
HUMAN HGNC=4398 UniProtKB=P62879	GNB2	hydrolase(PC00121);heterotrimeric G-protein(PC00095)
HUMAN HGNC=30594 UniProtKB=Q9H3U1	UNC45A	chaperone(PC00072)
HUMAN HGNC=1843 UniProtKB=Q9BXW7	CECR5	transferase(PC00220)
HUMAN HGNC=3350 UniProtKB=P06733	ENO1	lyase(PC00144)
HUMAN HGNC=5213 UniProtKB=P51659	HSD17B4	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=11059 UniProtKB=Q9UPY5	SLC7A11	amino acid transporter(PC00227)
HUMAN HGNC=24308 UniProtKB=Q96KA5	CLPTM1L	lyase(PC00144)
HUMAN HGNC=9229 UniProtKB=O14495	PPAP2B	
HUMAN HGNC=8729 UniProtKB=P12004	PCNA	DNA polymerase processivity factor(PC00171)
HUMAN HGNC=7758 UniProtKB=Q99519	NEU1	hydrolase(PC00121)
HUMAN HGNC=3599 UniProtKB=P22087	FBL	methyltransferase(PC00220);ribonucleoprotein(PC00155)
HUMAN HGNC=8768 UniProtKB=O95831	AIFM1	dehydrogenase(PC00176);oxidase(PC00092);reductase(PC00175)
HUMAN HGNC=6623 UniProtKB=Q9Y5X9	LIPG	storage protein(PC00210);esterase(PC00121);lipase(PC00097)

HUMAN HGNC=2452 UniProtKB=P48730	CSNK1D	non-receptor serine/threonine protein kinase(PC00220);non-receptor serine/threonine protein kinase(PC00137)
HUMAN HGNC=29609 UniProtKB=Q9NPH0	ACP6	phosphatase(PC00181);phosphatase(PC00121)
HUMAN HGNC=6970 UniProtKB=P40925	MDH1	dehydrogenase(PC00176)
HUMAN HGNC=12009 UniProtKB=P60174	TPI1	isomerase(PC00135)
HUMAN HGNC=20696 UniProtKB=Q9H9T3	ELP3	acetyltransferase(PC00220)
HUMAN HGNC=16264 UniProtKB=Q12931	TRAP1	Hsp90 family chaperone(PC00072)
HUMAN HGNC=20066 UniProtKB=Q70CQ2	USP34	
HUMAN HGNC=13552 UniProtKB=P98196	ATP11A	cation transporter(PC00227);hydrolase(PC00068)
HUMAN HGNC=9840 UniProtKB=P11234	RALB	small GTPase(PC00095)
HUMAN HGNC=12028 UniProtKB=P14625	HSP90B1	Hsp90 family chaperone(PC00072)
HUMAN HGNC=6936 UniProtKB=Q96RQ3	MCCC1	ligase(PC00142)
HUMAN HGNC=3265 UniProtKB=P05198	EIF2S1	translation initiation factor(PC00171)
HUMAN HGNC=26019 UniProtKB=Q9NX62	IMPA1	phosphatase(PC00181);phosphatase(PC00121)
HUMAN HGNC=14220 UniProtKB=Q96P63	SERPINB12	serine protease inhibitor(PC00095)
HUMAN HGNC=6316 UniProtKB=Q92945	KHSRP	mRNA splicing factor(PC00171);ribonucleoprotein(PC00031);enzyme modulator(PC00147)
HUMAN HGNC=18572 UniProtKB=Q6YN16	HSDL2	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=9551 UniProtKB=P43686	PSMC4	hydrolase(PC00121)
HUMAN HGNC=10421 UniProtKB=P61247	RPS3A	ribosomal protein(PC00171)
HUMAN HGNC=21100 UniProtKB=Q96PU8	QKI	transcription cofactor(PC00218);mRNA splicing factor(PC00217)
HUMAN HGNC=8877 UniProtKB=P08237	PFKM	carbohydrate kinase(PC00220);carbohydrate kinase(PC00137)
HUMAN HGNC=8004 UniProtKB=O14786	NRP1	transporter(PC00227);apolipoprotein(PC00219);membrane-bound signaling molecule(PC00052);receptor(PC00207);metalloprotease(PC00152);serine protease(PC00197);oxidase(PC00190);metalloprotease(PC00153);serine protease(PC00203);extracellular matrix protein(PC00176);enzyme modulator(PC00175);cell adhesion molecule(PC00121)
HUMAN HGNC=8891 UniProtKB=P52209	PGD	dehydrogenase(PC00176)
HUMAN HGNC=28858 UniProtKB=Q9NXG6	P4HTM	hydroxylase(PC00176);oxygenase(PC00122)
HUMAN HGNC=4853 UniProtKB=Q92769	HDAC2	reductase(PC00176);nucleic acid binding(PC00198);deacetylase(PC00171)
HUMAN HGNC=7325 UniProtKB=P43246	MSH2	DNA binding protein(PC00171)
HUMAN HGNC=18261 UniProtKB=Q8TAT6	NPLOC4	
HUMAN HGNC=2484 UniProtKB=P33240	CSTF2	mRNA splicing factor(PC00171)
HUMAN HGNC=7532 UniProtKB=P20591	MX1	hydrolase(PC00121);small GTPase(PC00095);microtubule family cytoskeletal protein(PC00020)
HUMAN HGNC=1618 UniProtKB=P48643	CCT5	chaperonin(PC00072)
HUMAN HGNC=30793 UniProtKB=O60841	EIF5B	translation elongation factor(PC00171);translation initiation factor(PC00031);hydrolase(PC00223);G-protein(PC00222)
HUMAN HGNC=4800 UniProtKB=Q99714	HSD17B10	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=10327 UniProtKB=P61254	RPL26	ribosomal protein(PC00171)

HUMAN HGNC=1424 UniProtKB=P27708	CAD	transferase(PC00220);ligase(PC00142)
HUMAN HGNC=3299 UniProtKB=P55010	EIF5	translation initiation factor(PC00171);G-protein modulator(PC00031)
HUMAN HGNC=11547 UniProtKB=Q92804	TAF15	transcription factor(PC00218);DNA binding protein(PC00171);mRNA splicing factor(PC00009)
HUMAN HGNC=3418 UniProtKB=P07814	EPRS	ligase(PC00142)
HUMAN HGNC=3508 UniProtKB=Q01844	EWSR1	transcription factor(PC00218);DNA binding protein(PC00171);mRNA splicing factor(PC00009)
HUMAN HGNC=3208 UniProtKB=P24534	EEF1B2	translation elongation factor(PC00171)
HUMAN HGNC=2860 UniProtKB=Q9UBM7	DHCR7	receptor(PC00197);reductase(PC00176)
HUMAN HGNC=15506 UniProtKB=Q9BSV6	TSEN34	endoribonuclease(PC00171);nuclease(PC00031)
HUMAN HGNC=10250 UniProtKB=Q9HCK4	ROBO2	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=5157 UniProtKB=P00492	HPRT1	glycosyltransferase(PC00220);mutase(PC00111)
HUMAN HGNC=11111 UniProtKB=Q14683	SMC1A	chromatin/chromatin-binding protein(PC00171);hydrolase(PC00009)
HUMAN HGNC=9137 UniProtKB=Q06265	EXOSC9	exoribonuclease(PC00171);nuclease(PC00031);hydrolase(PC00099)
HUMAN HGNC=7432 UniProtKB=P11586	MTHFD1	dehydrogenase(PC00176);ligase(PC00092);hydrolase(PC00142)
HUMAN HGNC=5039 UniProtKB=P52597	HNRNPF	ribosomal protein(PC00171)
HUMAN HGNC=10289 UniProtKB=P27694	RPA1	DNA binding protein(PC00171)
HUMAN HGNC=30483 UniProtKB=Q96MG8	PCMTD1	methyltransferase(PC00220)
HUMAN HGNC=16906 UniProtKB=Q9Y2Q3	GSTK1	transfer/carrier protein(PC00219)
HUMAN HGNC=16951 UniProtKB=Q9Y6Y0	IVNS1ABP	transcription factor(PC00218);serine protease(PC00190);serine protease(PC00203);non-motor actin binding protein(PC00121)
HUMAN HGNC=29419 UniProtKB=Q5JPH6	EARS2	ligase(PC00142)
HUMAN HGNC=44 UniProtKB=Q03519	TAP2	ATP-binding cassette (ABC) transporter(PC00227)
HUMAN HGNC=10680 UniProtKB=P31040	SDHA	dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=9828 UniProtKB=P78406	RAE1	RNA binding protein(PC00171)
HUMAN HGNC=94 UniProtKB=Q9BWD1	ACAT2	acetyltransferase(PC00220)
HUMAN HGNC=30739 UniProtKB=Q9Y320	TMX2	
HUMAN HGNC=11375 UniProtKB=P48723	HSPA13	Hsp70 family chaperone(PC00072)
HUMAN HGNC=14276 UniProtKB=Q9BYD3	MRPL4	
HUMAN HGNC=9569 UniProtKB=Q9UL46	PSME2	
HUMAN HGNC=11839 UniProtKB=Q04726	TLE3	transcription cofactor(PC00218)
HUMAN HGNC=9107 UniProtKB=Q9Y4D7	PLXND1	tyrosine protein kinase receptor(PC00220);signaling molecule(PC00137);tyrosine protein kinase receptor(PC00193);protein kinase(PC00233)
HUMAN HGNC=12998 UniProtKB=O43670	ZNF207	DNA binding protein(PC00171)
HUMAN HGNC=11427 UniProtKB=Q9UNE7	STUB1	chaperone(PC00072)
HUMAN HGNC=7945 UniProtKB=P17342	NPR3	adenylate cyclase(PC00144);guanylate cyclase(PC00079)
HUMAN HGNC=14517 UniProtKB=Q8N983	MRPL43	ribosomal protein(PC00171)

HUMAN HGNC=11004 UniProtKB=Q14542	SLC29A2	transporter(PC00227)
HUMAN HGNC=19902 UniProtKB=Q9HB90	RRAGC	small GTPase(PC00095)
HUMAN HGNC=9973 UniProtKB=P40937	RFC5	nucleotidyltransferase(PC00220);DNA-directed DNA polymerase(PC00174)
HUMAN HGNC=587 UniProtKB=P27695	APEX1	
HUMAN HGNC=29932 UniProtKB=Q13057	COASY	kinase(PC00220);kinase(PC00137)
HUMAN HGNC=4553 UniProtKB=P07203	GPX1	peroxidase(PC00176)
HUMAN HGNC=5330 UniProtKB=P41252	IARS	aminoacyl-tRNA synthetase(PC00142)
HUMAN HGNC=21749 UniProtKB=Q7L5N1	COPS6	
HUMAN HGNC=17059 UniProtKB=Q9NTJ5	SACM1L	phosphatase(PC00181);phosphatase(PC00121)
HUMAN HGNC=3211 UniProtKB=P29692	EEF1D	translation elongation factor(PC00171)
HUMAN HGNC=7871 UniProtKB=Q15233	NONO	mRNA splicing factor(PC00171)
HUMAN HGNC=4378 UniProtKB=P49915	GMPS	glycosyltransferase(PC00220)
HUMAN HGNC=10770 UniProtKB=Q15393	SF3B3	damaged DNA-binding protein(PC00171);mRNA polyadenylation factor(PC00009);mRNA splicing factor(PC00086)
HUMAN HGNC=26542 UniProtKB=Q5T2T1	MPP7	nucleotide kinase(PC00220);nucleotide kinase(PC00137);cell junction protein(PC00172)
HUMAN HGNC=1550 UniProtKB=P35520	CBS	dehydratase(PC00144);epimerase/racemase(PC00091);deaminase(PC00135)
HUMAN HGNC=6470 UniProtKB=P32004	L1CAM	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=6947 UniProtKB=P33991	MCM4	DNA binding protein(PC00171)
HUMAN HGNC=3245 UniProtKB=Q9H223	EHD4	membrane traffic protein(PC00150);G-protein modulator(PC00095);calcium-binding protein(PC00022)
HUMAN HGNC=17009 UniProtKB=Q9H2D6	TRIOBP	G-protein modulator(PC00095);actin family cytoskeletal protein(PC00022)
HUMAN HGNC=30740 UniProtKB=Q9BW92	TARS2	ligase(PC00142)
HUMAN HGNC=8725 UniProtKB=Q16822	PCK2	decarboxylase(PC00144)
HUMAN HGNC=3720 UniProtKB=Q02790	FKBP4	isomerase(PC00135);chaperone(PC00072);calcium-binding protein(PC00060)
HUMAN HGNC=9319 UniProtKB=P60510	PPP4C	protein phosphatase(PC00181);protein phosphatase(PC00195);calcium-binding protein(PC00121)
HUMAN HGNC=16753 UniProtKB=P30041	PRDX6	peroxidase(PC00176)
HUMAN HGNC=11985 UniProtKB=O94826	TOMM70A	chaperone(PC00072)
HUMAN HGNC=14683 UniProtKB=Q9Y2G5	POFUT2	glycosyltransferase(PC00220)
HUMAN HGNC=18294 UniProtKB=Q9BT22	ALG1	glycosyltransferase(PC00220)
HUMAN HGNC=2717 UniProtKB=Q16531	DDB1	damaged DNA-binding protein(PC00171);mRNA polyadenylation factor(PC00009)
HUMAN HGNC=9890 UniProtKB=Q16576	RBBP7	receptor(PC00197)
HUMAN HGNC=600 UniProtKB=P02647	APOA1	
HUMAN HGNC=6041 UniProtKB=A1LOT0	ILVBL	transferase(PC00220);dehydrogenase(PC00176);decarboxylase(PC00092)
HUMAN HGNC=469 UniProtKB=Q01433	AMPD2	deaminase(PC00121)
HUMAN HGNC=12586 UniProtKB=P22695	UQCRC2	metalloprotease(PC00190);reductase(PC00153);esterase(PC00176);metalloprotease(PC00198)

HUMAN HGNC=7546 UniProtKB=Q9BQG0	MYBBP1A	transcription factor(PC00218);DNA-directed DNA polymerase(PC00171)
HUMAN HGNC=13824 UniProtKB=Q96T76	MMS19	transcription cofactor(PC00218);nucleic acid binding(PC00217)
HUMAN HGNC=17152 UniProtKB=Q9Y305	ACOT9	esterase(PC00121)
HUMAN HGNC=7597 UniProtKB=O00159	MYO1C	G-protein modulator(PC00095);actin binding motor protein(PC00022);cell junction protein(PC00085)
HUMAN HGNC=11180 UniProtKB=P04179	SOD2	oxidoreductase(PC00176)
HUMAN HGNC=18349 UniProtKB=Q13268	DHRS2	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=10760 UniProtKB=Q01105	SET	phosphatase inhibitor(PC00095);chaperone(PC00184)
HUMAN HGNC=21169 UniProtKB=Q8XI1	RHOT2	small GTPase(PC00095)
HUMAN HGNC=13770 UniProtKB=Q8TDY8	IGDCC4	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=22923 UniProtKB=Q96IJ6	GMPPA	nucleotidyltransferase(PC00220);translation initiation factor(PC00174);guanyl-nucleotide exchange factor(PC00171)
HUMAN HGNC=28226 UniProtKB=Q9BRT9	GINS4	
HUMAN HGNC=10563 UniProtKB=O15126	SCAMP1	transferase(PC00220);transfer/carrier protein(PC00219)
HUMAN HGNC=3535 UniProtKB=P00734	F2	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=17468 UniProtKB=Q96HC4	PDLIM5	transcription factor(PC00218);non-motor actin binding protein(PC00085)
HUMAN HGNC=3098 UniProtKB=O14656	TOR1A	chaperone(PC00072)
HUMAN HGNC=9508 UniProtKB=P49768	PSEN1	membrane-bound signaling molecule(PC00207);aspartic protease(PC00152);aspartic protease(PC00190);calcium-binding protein(PC00053)
HUMAN HGNC=7857 UniProtKB=P30419	NMT1	transferase(PC00220)
HUMAN HGNC=17854 UniProtKB=Q9HAU5	UPF2	nuclease(PC00171)
HUMAN HGNC=2734 UniProtKB=Q92499	DDX1	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=30796 UniProtKB=Q9Y3F4	STRAP	translation initiation factor(PC00171)
HUMAN HGNC=9839 UniProtKB=P11233	RALA	small GTPase(PC00095)
HUMAN HGNC=30844 UniProtKB=Q6UXD5	SEZ6L2	apolipoprotein(PC00219);receptor(PC00052);metalloprotease(PC00197);serine protease(PC00190);metalloprotease(PC00153);serine protease(PC00203);complement component(PC00121);cell adhesion molecule(PC00190)
HUMAN HGNC=30748 UniProtKB=Q9UKU6	TRHDE	metalloprotease(PC00190);metalloprotease(PC00153)
HUMAN HGNC=30892 UniProtKB=Q7Z6Z7	HUWE1	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=1617 UniProtKB=P50991	CCT4	chaperonin(PC00072)
HUMAN HGNC=621 UniProtKB=Q13564	NAE1	transfer/carrier protein(PC00219);ligase(PC00142)
HUMAN HGNC=30778 UniProtKB=Q8WXI9	GATAD2B	chromatin/chromatin-binding protein(PC00171)
HUMAN HGNC=1615 UniProtKB=P78371	CCT2	chaperonin(PC00072)
HUMAN HGNC=16652 UniProtKB=Q9HD33	MRPL47	ribosomal protein(PC00171)
HUMAN HGNC=20662 UniProtKB=Q6NUK1	SLC25A24	amino acid transporter(PC00227);mitochondrial carrier protein(PC00046);transfer/carrier protein(PC00158);ribosomal protein(PC00219);calmodulin(PC00171)
HUMAN HGNC=1497 UniProtKB=O14936	CASK	nucleotide kinase(PC00220);protein kinase(PC00137);nucleotide kinase(PC00172);protein kinase(PC00193);cell junction protein(PC00137)

HUMAN HGNC=6945 UniProtKB=P25205	MCM3	DNA helicase(PC00171);helicase(PC00009);hydrolase(PC00011)
HUMAN HGNC=4010 UniProtKB=P35637	FUS	transcription factor(PC00218);DNA binding protein(PC00171);mRNA splicing factor(PC00009)
HUMAN HGNC=3477 UniProtKB=P62495	ETF1	translation release factor(PC00171)
HUMAN HGNC=9553 UniProtKB=P62333	PSMC6	hydrolase(PC00121)
HUMAN HGNC=6842 UniProtKB=P36507	MAP2K2	
HUMAN HGNC=5007 UniProtKB=Q01581	HMGCS1	transferase(PC00220);lyase(PC00144)
HUMAN HGNC=12840 UniProtKB=P54577	YARS	aminoacyl-tRNA synthetase(PC00142)
HUMAN HGNC=533 UniProtKB=P04083	ANXA1	
HUMAN HGNC=10363 UniProtKB=P18124	RPL7	ribosomal protein(PC00171)
HUMAN HGNC=18683 UniProtKB=P38919	EIF4A3	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=21396 UniProtKB=Q8WTS1	ABHD5	serine protease(PC00190);serine protease(PC00203)
HUMAN HGNC=7704 UniProtKB=Q9Y6M9	NDUFB9	oxidoreductase(PC00176)
HUMAN HGNC=16930 UniProtKB=Q8IWX8	CHERP	RNA binding protein(PC00171)
HUMAN HGNC=2419 UniProtKB=Q08257	CRYZ	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=16987 UniProtKB=Q9Y2Z0	SUGT1	chaperone(PC00072)
HUMAN HGNC=12576 UniProtKB=Q16831	UPP1	phosphorylase(PC00220)
HUMAN HGNC=3631 UniProtKB=P14324	FDPS	acyltransferase(PC00220)
HUMAN HGNC=5048 UniProtKB=Q00839	HNRNPU	
HUMAN HGNC=1616 UniProtKB=P49368	CCT3	chaperonin(PC00072)
HUMAN HGNC=14498 UniProtKB=P82675	MRPS5	ribosomal protein(PC00171)
HUMAN HGNC=13238 UniProtKB=Q9HDC9	APMAP	lyase(PC00144)
HUMAN HGNC=30661 UniProtKB=Q9UBT2	UBA2	transfer/carrier protein(PC00219);ligase(PC00142)
HUMAN HGNC=2060 UniProtKB=O14967	CLGN	chaperone(PC00072);calcium-binding protein(PC00060)
HUMAN HGNC=13516 UniProtKB=Q9NR09	BIRC6	protease inhibitor(PC00095)
HUMAN HGNC=3173 UniProtKB=O43854	EDIL3	transporter(PC00227);apolipoprotein(PC00219);membrane-bound signaling molecule(PC00052);receptor(PC00207); metalloprotease(PC00152);serine protease(PC00197);oxidase(PC00190);metalloprotease(PC00153); serine protease(PC00203);extracellular matrix protein(PC00176);enzyme modulator(PC00175);cell adhesion molecule(PC00121)
HUMAN HGNC=812 UniProtKB=P16615	ATP2A2	cation transporter(PC00227);ion channel(PC00068);hydrolase(PC00133)
HUMAN HGNC=11277 UniProtKB=O15269	SPTLC1	transaminase(PC00220)
HUMAN HGNC=5387 UniProtKB=Q13907	IDI1	isomerase(PC00135)
HUMAN HGNC=30306 UniProtKB=Q99623	PHB2	
HUMAN HGNC=32310 UniProtKB=Q8IXT5	RBM12B	ribosomal protein(PC00171)
HUMAN HGNC=7714 UniProtKB=O75251	NDUFS7	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=10360 UniProtKB=P46777	RPL5	ribosomal protein(PC00171)

HUMAN HGNC=11231 UniProtKB=Q8WXF7	ATL1	heterotrimeric G-protein(PC00095)
HUMAN HGNC=8809 UniProtKB=Q15118	PDK1	protein kinase(PC00220);protein kinase(PC00137)
HUMAN HGNC=3257 UniProtKB=Q14232	EIF2B1	translation initiation factor(PC00171);isomerase(PC00031)
HUMAN HGNC=12499 UniProtKB=Q14139	UBE4A	enzyme modulator(PC00095)
HUMAN HGNC=10766 UniProtKB=Q15428	SF3A2	mRNA splicing factor(PC00171)
HUMAN HGNC=23781 UniProtKB=Q9Y2S7	POLDIP2	ligase(PC00142)
HUMAN HGNC=18681 UniProtKB=Q7L014	DDX46	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=3554 UniProtKB=Q92506	HSD17B8	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=8728 UniProtKB=P22061	PCMT1	methyltransferase(PC00220)
HUMAN HGNC=12010 UniProtKB=P09493	TPM1	actin binding motor protein(PC00085)
HUMAN HGNC=2718 UniProtKB=Q92466	DDB2	damaged DNA-binding protein(PC00171)
HUMAN HGNC=14011 UniProtKB=O95347	SMC2	chromatin/chromatin-binding protein(PC00171);hydrolase(PC00009)
HUMAN HGNC=3287 UniProtKB=P06730	EIF4E	translation initiation factor(PC00171)
HUMAN HGNC=15954 UniProtKB=Q96GM8	TOE1	mRNA polyadenylation factor(PC00171)
HUMAN HGNC=3030 UniProtKB=P55039	DRG2	small GTPase(PC00095)
HUMAN HGNC=2896 UniProtKB=P10515	DLAT	acetyltransferase(PC00220);acyltransferase(PC00038)
HUMAN HGNC=15529 UniProtKB=Q8NFZ3	NLGN4Y	esterase(PC00121);lipase(PC00097)
HUMAN HGNC=29529 UniProtKB=Q9BZK7	TBL1XR1	
HUMAN HGNC=6918 UniProtKB=O95983	MBD3	DNA binding protein(PC00171)
HUMAN HGNC=823 UniProtKB=P25705	ATP5A1	ATP synthase(PC00227);anion channel(PC00068);ligand-gated ion channel(PC00002);ligand-gated ion channel(PC00133);DNA binding protein(PC00049);hydrolase(PC00141)
HUMAN HGNC=16963 UniProtKB=Q7L523	RRAGA	small GTPase(PC00095)
HUMAN HGNC=4023 UniProtKB=P51114	FXR1	RNA binding protein(PC00171)
HUMAN HGNC=4908 UniProtKB=Q6NVY1	HIBCH	acetyltransferase(PC00220);acyltransferase(PC00038);dehydrogenase(PC00042);hydratase(PC00176);ligase(PC00092);epimerase/racemase(PC00144)
HUMAN HGNC=1622 UniProtKB=Q99832	CCT7	chaperonin(PC00072)
HUMAN HGNC=9083 UniProtKB=O60568	PLOD3	oxygenase(PC00176)
HUMAN HGNC=5187 UniProtKB=Q99873	PRMT1	methyltransferase(PC00220)
HUMAN HGNC=3516 UniProtKB=Q9UBQ6	EXTL2	glycosyltransferase(PC00220)
HUMAN HGNC=10384 UniProtKB=P62280	RPS11	ribosomal protein(PC00171)
HUMAN HGNC=24113 UniProtKB=Q9H7F0	ATP13A3	cation transporter(PC00227);ion channel(PC00068);hydrolase(PC00133)
HUMAN HGNC=24262 UniProtKB=Q9Y303	AMDHD2	deacetylase(PC00121)
HUMAN HGNC=17271 UniProtKB=P62070	RRAS2	small GTPase(PC00095)
HUMAN HGNC=4037 UniProtKB=P06241	FYN	non-receptor tyrosine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137)
HUMAN HGNC=4606 UniProtKB=P30101	PDIA3	

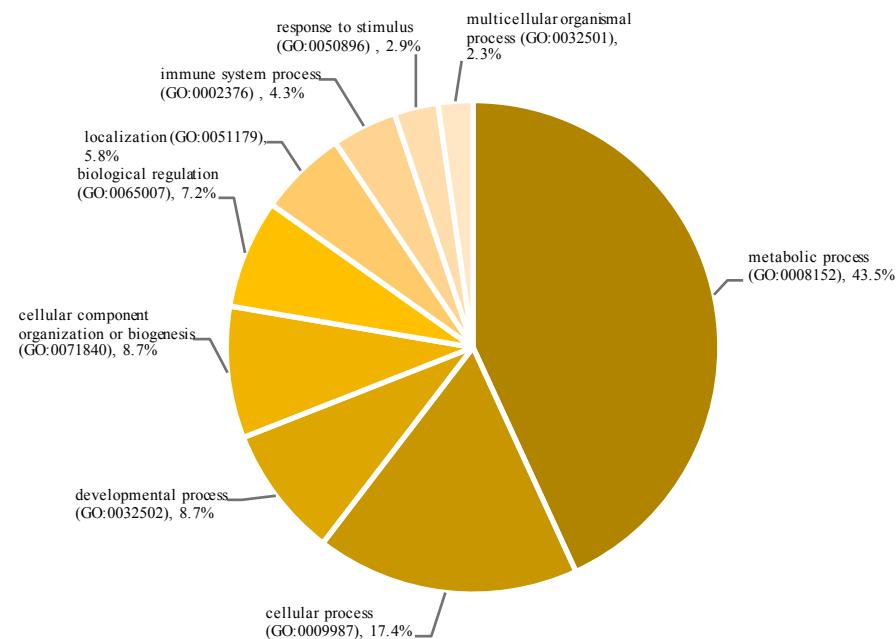
HUMAN HGNC=28440 UniProtKB=Q68CQ4	DIEFX	RNA binding protein(PC00171)
HUMAN HGNC=29 UniProtKB=O95477	ABCA1	ATP-binding cassette (ABC) transporter(PC00227)
HUMAN HGNC=9675 UniProtKB=P28827	PTPRM	receptor(PC00197);protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=11465 UniProtKB=Q9Y5B9	SUPT16H	transcription cofactor(PC00218);nucleic acid binding(PC00217)
HUMAN HGNC=2501 UniProtKB=P32929	CTH	lyase(PC00144)
HUMAN HGNC=7656 UniProtKB=P13591	NCAM1	immunoglobulin receptor superfamily(PC00197);protein phosphatase(PC00084);protein phosphatase(PC00124);immunoglobulin receptor superfamily(PC00181);immunoglobulin superfamily cell adhesion molecule(PC00195)
HUMAN HGNC=16475 UniProtKB=Q3SXM5	HSDL1	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=5041 UniProtKB=P31943	HNRNPH1	ribosomal protein(PC00171)
HUMAN HGNC=1473 UniProtKB=P27824	CANX	chaperone(PC00072);calcium-binding protein(PC00060)
HUMAN HGNC=17964 UniProtKB=Q8TC12	RDH11	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=6215 UniProtKB=Q15046	KARS	RNA binding protein(PC00171);aminoacyl-tRNA synthetase(PC00031)
HUMAN HGNC=17160 UniProtKB=P53365	ARFIP2	G-protein modulator(PC00095)
HUMAN HGNC=30249 UniProtKB=Q6ZRP7	QSOX2	oxidase(PC00176)
HUMAN HGNC=801 UniProtKB=P13637	ATP1A3	cation transporter(PC00227);ion channel(PC00068);hydrolase(PC00133)
HUMAN HGNC=10313 UniProtKB=P46778	RPL21	ribosomal protein(PC00171)
HUMAN HGNC=14013 UniProtKB=Q9NTJ3	SMC4	chromatin/chromatin-binding protein(PC00171);hydrolase(PC00009)
HUMAN HGNC=25718 UniProtKB=Q8NF37	LPCAT1	acyltransferase(PC00220);annexin(PC00042);calmodulin(PC00060)
HUMAN HGNC=9352 UniProtKB=Q06830	PRDX1	peroxidase(PC00176)
HUMAN HGNC=10075 UniProtKB=O43148	RNMT	RNA methyltransferase(PC00220);RNA binding protein(PC00155)
HUMAN HGNC=29513 UniProtKB=O60306	AQR	DNA helicase(PC00171);RNA helicase(PC00009);endoribonuclease(PC00011);helicase(PC00031);nuclease(PC00032);hydrolase(PC00094)
HUMAN HGNC=8127 UniProtKB=O15294	OGT	glycosyltransferase(PC00220)
HUMAN HGNC=10676 UniProtKB=Q9HCN8	SDF2L1	glycosyltransferase(PC00220)
HUMAN HGNC=2716 UniProtKB=O95865	DDAH2	hydrolase(PC00121)
HUMAN HGNC=24047 UniProtKB=Q8NHH9	ATL2	heterotrimeric G-protein(PC00095)
HUMAN HGNC=10941 UniProtKB=P43003	SLC1A3	cation transporter(PC00227)
HUMAN HGNC=4241 UniProtKB=Q06210	GFPT1	transaminase(PC00220)
HUMAN HGNC=20900 UniProtKB=Q9UJA5	TRMT6	translation initiation factor(PC00171)
HUMAN HGNC=4021 UniProtKB=Q06136	KDSR	dehydrogenase(PC00176);reductase(PC00092)
HUMAN HGNC=5035 UniProtKB=P07910	HNRNPC	mRNA processing factor(PC00171);ribonucleoprotein(PC00031)
HUMAN HGNC=16638 UniProtKB=Q8IYB3	SRRM1	mRNA processing factor(PC00171)
HUMAN HGNC=2228 UniProtKB=P21964	COMT	methyltransferase(PC00220)
HUMAN HGNC=9969 UniProtKB=P35251	RFC1	nucleotide phosphatase(PC00181);DNA binding protein(PC00173);nucleotide phosphatase(PC00171)
HUMAN HGNC=9065 UniProtKB=P19174	PLCG1	signaling molecule(PC00207);phospholipase(PC00121);guanyl-nucleotide exchange factor(PC00143);calcium-binding protein(PC00186)

HUMAN HGNC=240 UniProtKB=O60503	ADCY9	adenylate cyclase(PC00144);guanylate cyclase(PC00079)
HUMAN HGNC=10990 UniProtKB=P12235	SLC25A4	amino acid transporter(PC00227);mitochondrial carrier protein(PC00046);transfer/carrier protein(PC00158);ribosomal protein(PC00219);calmodulin(PC00171)methyltransferase(PC00220)
HUMAN HGNC=23393 UniProtKB=Q86X55	CARM1	translation initiation factor(PC00171);isomerase(PC00031)
HUMAN HGNC=3260 UniProtKB=Q9UI10	EIF2B4	actin binding motor protein(PC00085)
HUMAN HGNC=12011 UniProtKB=P07951	TPM2	ligase(PC00142)
HUMAN HGNC=14027 UniProtKB=Q9NYK5	MRPL39	protein phosphatase(PC00181);protein phosphatase(PC00195)
HUMAN HGNC=9670 UniProtKB=P10586	PTPRF	dehydrogenase(PC00176)
HUMAN HGNC=409 UniProtKB=P47895	ALDH1A3	ribonucleoprotein(PC00171)
HUMAN HGNC=24912 UniProtKB=Q4G0J3	LARP7	non-receptor tyrosine protein kinase(PC00220);non-receptor tyrosine protein kinase(PC00137)
HUMAN HGNC=2444 UniProtKB=P41240	CSK	RNA helicase(PC00171);helicase(PC00031)
HUMAN HGNC=25628 UniProtKB=Q9NUU7	DDX19A	translation initiation factor(PC00171)
HUMAN HGNC=3266 UniProtKB=P20042	EIF2S2	carbohydrate kinase(PC00220);carbohydrate kinase(PC00137)
HUMAN HGNC=7530 UniProtKB=Q03426	MVK	dehydrogenase(PC00176);oxidase(PC00092);reductase(PC00175)
HUMAN HGNC=2898 UniProtKB=P09622	DLD	dehydrogenase(PC00176)
HUMAN HGNC=4057 UniProtKB=P11413	G6PD	acyltransferase(PC00220);dehydrogenase(PC00042);decarboxylase(PC00176)
HUMAN HGNC=6983 UniProtKB=P48163	ME1	dehydratase(PC00144)
HUMAN HGNC=1383 UniProtKB=Q16790	CA9	ubiquitin-protein ligase(PC00142)
HUMAN HGNC=30423 UniProtKB=Q9HB71	CACYBP	dehydrogenase(PC00176);hydratase(PC00092);epimerase/racemase(PC00144)
HUMAN HGNC=4801 UniProtKB=P40939	HADHA	nuclease(PC00171)
HUMAN HGNC=20217 UniProtKB=Q9NVH0	EXD2	G-protein modulator(PC00095);actin binding motor protein(PC00022);cell junction protein(PC00085)
HUMAN HGNC=16075 UniProtKB=Q9H082	RAB33B	transferase(PC00220);dehydrogenase(PC00176);oxidase(PC00092)
HUMAN HGNC=7579 UniProtKB=P35579	MYH9	DNA helicase(PC00171);RNA helicase(PC00009);endoribonuclease(PC00011);helicase(PC00031);nuclease(PC00032);hydrolase(PC00094)
HUMAN HGNC=119 UniProtKB=Q15067	ACOX1	reductase(PC00176)
HUMAN HGNC=9962 UniProtKB=Q92900	UPF1	chaperone(PC00072)
HUMAN HGNC=385 UniProtKB=P52895	AKR1C2	glucosidase(PC00121)
HUMAN HGNC=11997 UniProtKB=Q9H497	TOR3A	isomerase(PC00135);chaperone(PC00072);calcium-binding protein(PC00060)
HUMAN HGNC=4138 UniProtKB=Q14697	GANAB	small GTPase(PC00095)
HUMAN HGNC=3723 UniProtKB=Q9Y680	FKBP7	
HUMAN HGNC=3424 UniProtKB=O75616	ERAL1	

## DEPs in metastasis

### Biological Process

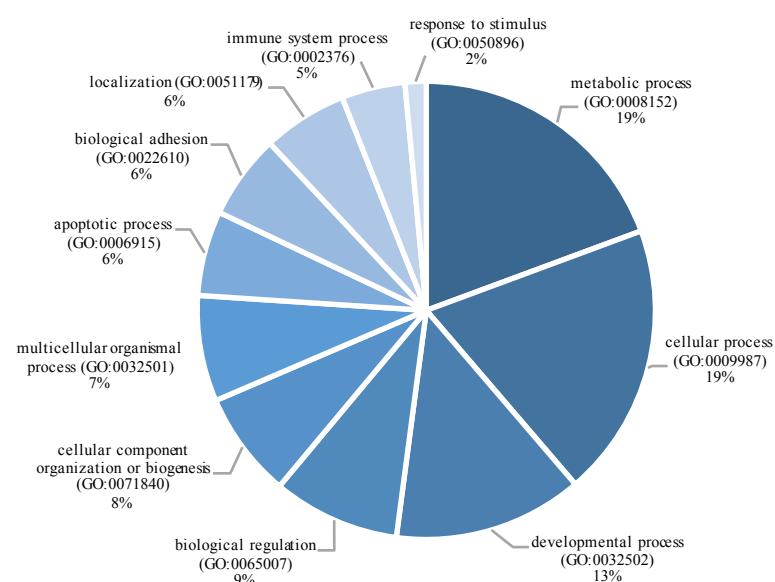
Biological Process	Protein	Percentage
metabolic process (GO:0008152)	43.5	43.5%
cellular process (GO:0009987)	17.4	17.4%
developmental process (GO:0032502)	8.7	8.7%
cellular component organization or biogenesis (GO:0071840)	8.7	8.7%
biological regulation (GO:0065007)	7.2	7.2%
localization (GO:0051179)	5.8	5.8%
immune system process (GO:0002376)	4.3	4.3%
response to stimulus (GO:0050896)	2.9	2.9%
multicellular organismal process (GO:0032501)	2.3	2.3%
	100.8	





## DEPs in chemoresistance

Biological Process	Protein	Percentage
metabolic process (GO:0008152)	19.4	19.4%
cellular process (GO:0009987)	19.4	19.4%
developmental process (GO:0032502)	13.4	13.4%
biological regulation (GO:0065007)	9	9.0%
cellular component organization or biogenesis (GO:0071840)	7.5	7.5%
multicellular organismal process (GO:0032501)	7.5	7.5%
apoptotic process (GO:0006915)	6	6.0%
biological adhesion (GO:0022610)	6	6.0%
localization (GO:0051179)	6	6.0%
immune system process (GO:0002376)	5	5.0%
response to stimulus (GO:0050896)	2	2.0%
		100.2%



**List of up-regulated proteins and genes, targets of non-FDA-approved chemical agents**

Gene	Protein name	Chemical agents
ACSL1	Acyl-CoA synthase (long chain)	Triacsin C from Streptomyces sp.
ACSL3		
ADCY9		2',5'-Dideoxyadenosine 3'-triphosphate tetrasodium salt >91% (HPLC) 2'/3'-O-(N-Methylantraniloyl)guanosine-5'-( $\gamma$ -thio)triphosphate triethylammonium salt solution >95% (HPLC), aqueous solution 9-Cyclopentyladenine monomethanesulfonate $\geq$ 98% (HPLC), solid $\alpha$ -Tosyl-L-lysine chloromethyl ketone hydrochloride $\geq$ 96% (TLC), powder Pyrocatechol $\geq$ 99%, powder Pyrocatechol plant cell culture tested, BioReagent, $\geq$ 99%, powder
ANPEP	Aminopeptidase N	1,10-Phenanthroline monohydrate reagent grade
CDK2	Cyclin-dependent kinase 2	N-[(2S,3R)-3-Amino-2-hydroxy-4-phenylbutyryl]-L-leucine 97% GW8510 solid NU2058 >98% (HPLC) SU 9516 $\geq$ 98% (HPLC), crystalline Wee1, active from rat N-terminal GST-tagged, solution
CDK7	Cyclin-dependent kinase 7	[Ala92]-Peptide 6
CDK9	Cyclin-dependent kinase 9	Indirubin-3'-oxime $\geq$ 98% (HPLC), solid N9-Isopropylolomoucine $\geq$ 98% (HPLC) Olomoucine $\geq$ 98% (HPLC) p16-INK-4a TAT human recombinant, expressed in Escherichia coli, $\geq$ 95% (SDS-PAGE), $\geq$ 95% (HPLC), cell culture tested Roscovitine $\geq$ 98% (TLC) Alvocidib Seliciclib
CKB	Creatine kinase B-type	4-Chloromercuribenzoic acid cysteine active site modifier
CKM	Creatine kinase M-type	
CSNK2A2	Casein kinase II subunit alpha'	
CSNK2B	Casein kinase II subunit beta	
CTSB	Cathepsin B	Antipain dihydrochloride from microbial source CA-074 99% (TLC), solid CA-074 methyl ester $\geq$ 99% (TLC), solid Calpain Inhibitor I $\geq$ 97% (TLC), powder Calpain Inhibitor II powder Chymostatin microbial Cystatin from chicken egg white lyophilized powder E-64 protease inhibitor Leupeptin trifluoroacetate salt $\geq$ 90% (HPLC), microbial Procathepsin B Fragment 26-50, rat $\geq$ 95% (HPLC) Procathepsin B Fragment 36-50, rat $\geq$ 95% (HPLC) Z-Phe-Phe-fluoromethyl ketone $\geq$ 98% (TLC), solid $\alpha$ 2-Macroglobulin from human plasma BioUltra, $\geq$ 98% (SDS-PAGE)
CTSD	Cathepsin D	Antipain dihydrochloride from microbial source Chymostatin microbial Pepstatin A microbial

ECE1	Endothelin-converting enzyme 1	SM-19712 hydrate ≥98% (HPLC)
FADS1	Fatty acid desaturase 1	Sesamin ≥95%, crystalline
FADS2	Fatty acid desaturase 2	CP-24879 hydrochloride ≥98% (HPLC), solid
FASN	Fatty acid synthase	C75 ≥98% (HPLC), powder
FDFT1	Squalene Synthase	Cerulenin ≥98% (HPLC), from Cephalosporium caerulens
FDPS	Farnesyl pyrophosphate synthase	Zaragozic acid A trisodium salt ≥95% (HPLC), microbial Etidronate disodium hydrate ≥97% (NMR), solid Pamidronate disodium salt hydrate ≥95% (NMR), solid
FOLH1	Glutamate carboxypeptidase II	PBDA >95% (NMR), liquid
GLO1	Lactoylglutathione lyase	1,10-Phenanthroline monohydrate reagent grade
IDH1	Isocitrate dehydrogenase [NADP] cytoplasmic	1,10-Phenanthroline monohydrate reagent grade Diethylenetriaminepentaacetic acid ≥99% (titration) Ethylene glycol-bis(2-aminoethyl ether)-N,N,N',N'-tetraacetic acid ≥97.0% Ethylenediaminetetraacetic acid tripotassium salt dihydrate 98% (titration)
LDHA	L-lactate dehydrogenase A chain	Sodium oxamate ≥98%
LDHB	L-lactate dehydrogenase B chain	
MME	Neprilysin	DL-Thiorphan ≥98% (TLC)
NEU1	Sialidase-1	Siastatin B lyophilized powder, from microbial
NRAS	GTPase NRas	Lonafarnib (SCH66336) Tipifarnib (R115777)
PKM	Pyruvate kinase PKM	Quercetin ≥98% (HPLC), solid Quercetin dihydrate ≥98% (HPLC), powder
POLR1C	DNA-directed RNA polymerases I and III subunit RPAC1	
POLR2B	DNA-directed RNA polymerase II subunit RPB2	
POLR2C	DNA-directed RNA polymerase II subunit RPB3	
POLR3A	DNA-directed RNA polymerase III subunit RPC1	
POLR3C	DNA-directed RNA polymerase III subunit RPC3	
SOAT1	Sterol O-acyltransferase 1	Sandoz 58-035 >98% (HPLC), powder
SOAT2	Sterol O-acyltransferase 2	YIC-C8-434 >98% (HPLC), solid

#### Molecular functions of targets of chemical inhibitors

Molecular functions	No. of proteins	Percentage
1 binding (GO:0005488)	3	9.10%
2 receptor activity (GO:0004872)	1	3.00%
3 enzyme regulator activity (GO:0030234)	1	3.00%
<b>4 catalytic activity (GO:0003824)</b>	<b>26</b>	<b>78.80%</b>
5 transporter activity (GO:0005215)	2	6.10%

#### catalytic activity (GO:0003824)

1 ligase activity (GO:0016874)	3	10.00%
2 oxidoreductase activity (GO:0016491)	3	10.00%
<b>3 transferase activity (GO:0016740)</b>	<b>14</b>	<b>46.70%</b>
4 enzyme regulator activity (GO:0030234)	1	3.30%
5 hydrolase activity (GO:0016787)	8	26.70%
6 lyase activity (GO:0016829)	1	3.30%

#### Pathways of targets of chemical inhibitors

Category	Term	Count	PValue	Genes	List Total	Pop	Hits	Pop Total	Fold Enrichment	Bonferroni	Benjamini	FDR
KEGG_PATHWAY	hsa00230:Purine metabolism	6	0.0017908	ADCY9, POLR1C, POLR3A, POLR3C, POLR2C, POLR2B	31	153	5085	6.432637571	0.114746	0.059121	1.8270376	
KEGG_PATHWAY	hsa03020:RNA polymerase	5	1.83E-05	POLR1C, POLR3A, POLR3C, POLR2C, POLR2B	31	28	5085	29.29147465	0.001242	0.001242	0.0187994	
KEGG_PATHWAY	hsa00240:Pyrimidine metabolism	5	0.0021592	POLR1C, POLR3A, POLR3C, POLR2C, POLR2B	31	95	5085	8.63327674	0.136692	0.047814	2.1991763	
KEGG_PATHWAY	hsa00100:Steroid biosynthesis	3	0.0043316	SOAT1, SOAT2, FDFT1	31	17	5085	28.94686907	0.255608	0.07114	4.3676473	
KEGG_PATHWAY	hsa00620:Pyruvate metabolism	3	0.0228434	LDHB, LDHA, GLO1	31	40	5085	12.30241935	0.792239	0.269681	21.158647	
KEGG_PATHWAY	hsa04623:Cytosolic DNA-sensing pathway	3	0.0411888	POLR1C, POLR3A, POLR3C	31	55	5085	8.947214076	0.94274	0.379166	35.125323	
KEGG_PATHWAY	hsa03320:PPAR signaling pathway	3	0.0618662	ACSL1, FADS2, ACSL3	31	69	5085	7.131837307	0.986998	0.46226	48.15965	
KEGG_PATHWAY	hsa04614:Renin-angiotensin system	2	0.0958419	MME, ANPEP	31	17	5085	19.29791271	0.998942	0.575305	64.530586	

#### Pathways of targets of chemical inhibitors (catalytic activity GO:0003824)

Category	Term	Count	%	PValue	Genes
KEGG_PATHWAY	hsa00230:Purine metabolism	12	36.3636	1.10E-10	POLR2H, POLR3H, POLR1D, POLR2J, ADK, POLR1A, POLR1B, POLR2D, POLR3C, POLR3B, POLR2C, POLR2B
KEGG_PATHWAY	hsa03020:RNA polymerase	11	33.3333	3.30E-17	POLR2H, POLR3H, POLR1D, POLR2J, POLR1A, POLR1B, POLR2D, POLR3C, POLR3B, POLR2C, POLR2B
KEGG_PATHWAY	hsa00240:Pyrimidine metabolism	11	33.3333	2.08E-11	POLR2H, POLR3H, POLR1D, POLR2J, POLR1A, POLR1B, POLR2D, POLR3C, POLR3B, POLR2C, POLR2B
KEGG_PATHWAY	hsa04664:Fc epsilon RI signaling pathway	5	15.1515	6.88E-04	AKT1, MAPK1, MAPK13, MAPK8, PRKCE
KEGG_PATHWAY	hsa04910:Insulin signaling pathway	5	15.1515	0.00518845	AKT1, MAPK1, FASN, PRKCI, MAPK8
KEGG_PATHWAY	hsa04310:Wnt signaling pathway	5	15.1515	0.00769992	CSNK1A1, ROCK1, CSNK1E, PRKCG, MAPK8
KEGG_PATHWAY	hsa05016:Huntington's disease	5	15.1515	0.01408729	POLR2H, POLR2J, POLR2D, POLR2C, POLR2B
KEGG_PATHWAY	hsa04510:Focal adhesion	5	15.1515	0.02037084	AKT1, MAPK1, ROCK1, PRKCG, MAPK8
KEGG_PATHWAY	hsa04010:MAPK signaling pathway	5	15.1515	0.05032833	AKT1, MAPK1, MAPK13, PRKCG, MAPK8
KEGG_PATHWAY	hsa04623:Cytosolic DNA-sensing pathway	4	12.1212	0.00291465	POLR3H, POLR1D, POLR3C, POLR3B
KEGG_PATHWAY	hsa04370:VEGF signaling pathway	4	12.1212	0.0069907	AKT1, MAPK1, MAPK13, PRKCG
KEGG_PATHWAY	hsa04914:Progesterone-mediated oocyte maturation	4	12.1212	0.01019228	AKT1, MAPK1, MAPK13, MAPK8
KEGG_PATHWAY	hsa04012:ErbB signaling pathway	4	12.1212	0.01051919	AKT1, MAPK1, PRKCG, MAPK8
KEGG_PATHWAY	hsa04666:Fc gamma R-mediated phagocytosis	4	12.1212	0.01335531	AKT1, MAPK1, PRKCG, PRKCE
KEGG_PATHWAY	hsa04620:Toll-like receptor signaling pathway	4	12.1212	0.01574396	AKT1, MAPK1, MAPK13, MAPK8
KEGG_PATHWAY	hsa04270:Vascular smooth muscle contraction	4	12.1212	0.02071618	MAPK1, ROCK1, PRKCG, PRKCE
KEGG_PATHWAY	hsa04722:Neurotrophin signaling pathway	4	12.1212	0.02702592	AKT1, MAPK1, MAPK13, MAPK8
KEGG_PATHWAY	hsa04530:Tight junction	4	12.1212	0.03299209	AKT1, PRKCI, PRKCG, PRKCE
KEGG_PATHWAY	hsa04930:Type II diabetes mellitus	3	9.09091	0.02534336	MAPK1, MAPK8, PRKCE
KEGG_PATHWAY	hsa05223:Non-small cell lung cancer	3	9.09091	0.03279641	AKT1, MAPK1, PRKCG
KEGG_PATHWAY	hsa04621:NOD-like receptor signaling pathway	3	9.09091	0.0422322	MAPK1, MAPK13, MAPK8
KEGG_PATHWAY	hsa05214:Glioma	3	9.09091	0.04347624	AKT1, MAPK1, PRKCG
KEGG_PATHWAY	hsa05212:Pancreatic cancer	3	9.09091	0.05527233	AKT1, MAPK1, MAPK8
KEGG_PATHWAY	hsa05210:Colorectal cancer	3	9.09091	0.07253116	AKT1, MAPK1, MAPK8
KEGG_PATHWAY	hsa04912:GnRH signaling pathway	3	9.09091	0.09455909	MAPK1, MAPK13, MAPK8