

Entrez GeneID	Gene Name
25	v-abl Abelson murine leukemia viral oncogene homolog 1
27	v-abl Abelson murine leukemia viral oncogene homolog 2 (arg, Abelson-related gene)
90	activin A receptor, type I
91	activin A receptor, type IB
92	activin A receptor, type IIA
93	activin A receptor, type IIB
94	activin A receptor type II-like 1
132	adenosine kinase
156	adrenergic, beta, receptor kinase 1
157	adrenergic, beta, receptor kinase 2
203	adenylate kinase 1
204	adenylate kinase 2
205	adenylate kinase 3-like 1
207	v-akt murine thymoma viral oncogene homolog 1
208	v-akt murine thymoma viral oncogene homolog 2
238	anaplastic lymphoma kinase (Ki-1)
269	anti-Mullerian hormone receptor, type II
369	v-raf murine sarcoma 3611 viral oncogene homolog
472	ataxia telangiectasia mutated (includes complementation groups A, C and D)
545	ataxia telangiectasia and Rad3 related
558	AXL receptor tyrosine kinase
595	cyclin D1
613	breakpoint cluster region
640	B lymphoid tyrosine kinase
657	bone morphogenetic protein receptor, type IA
658	bone morphogenetic protein receptor, type IB
659	bone morphogenetic protein receptor, type II (serine/threonine kinase)
660	BMX non-receptor tyrosine kinase
673	v-raf murine sarcoma viral oncogene homolog B1
676	bromodomain, testis-specific
695	Bruton agammaglobulinemia tyrosine kinase
699	BUB1 budding uninhibited by benzimidazoles 1 homolog (yeast)
701	BUB1 budding uninhibited by benzimidazoles 1 homolog beta (yeast)
780	discoidin domain receptor family, member 1
801	CALM1 calmodulin 1 (phosphorylase kinase, delta)
805	CALM2 calmodulin 2 (phosphorylase kinase, delta)
808	CALM3 calmodulin 3 (phosphorylase kinase, delta)
814	calcium/calmodulin-dependent protein kinase IV
815	calcium/calmodulin-dependent protein kinase (CaM kinase) II alpha

816 calcium/calmodulin-dependent protein kinase (CaM kinase) II beta

817 calcium/calmodulin-dependent protein kinase (CaM kinase) II delta

818 calcium/calmodulin-dependent protein kinase (CaM kinase) II gamma

902 cyclin H

983 cell division cycle 2, G1 to S and G2 to M

984 cell division cycle 2-like 2 (PITSLRE proteins); cell division cycle 2-like 1 (PITSLRE proteins)

1017 cyclin-dependent kinase 2

1018 cyclin-dependent kinase 3

1019 cyclin-dependent kinase 4

1020 cyclin-dependent kinase 5

1021 cyclin-dependent kinase 6

1022 cyclin-dependent kinase 7 (MO15 homolog, *Xenopus laevis*, cdk-activating kinase)

1024 similar to cyclin-dependent kinase 8 isoform a; cyclin-dependent kinase 8

1025 cyclin-dependent kinase 9 (CDC2-related kinase)

1026 cyclin-dependent kinase inhibitor 1A (p21, Cip1)

1027 CDKN1B cyclin-dependent kinase inhibitor 1B (p27, Kip1)

1028 CDKN1C cyclin-dependent kinase inhibitor 1C (p57, Kip2)

1029 CDKN2A cyclin-dependent kinase inhibitor 2A (melanoma, p16, inhibits CDK4)

1030 cyclin-dependent kinase inhibitor 2B (p15, inhibits CDK4)

1031 CDKN2C cyclin-dependent kinase inhibitor 2C (p18, inhibits CDK4)

1032 CDKN2D cyclin-dependent kinase inhibitor 2D (p19, inhibits CDK4)

1111 CHK1 checkpoint homolog (*S. pombe*)

1119 choline kinase alpha

1120 carnitine palmitoyltransferase 1B (muscle); choline kinase beta

1147 conserved helix-loop-helix ubiquitous kinase

1152 creatine kinase, brain

1158 creatine kinase, muscle

1159 creatine kinase, mitochondrial 1B

1160 creatine kinase, mitochondrial 2 (sarcomeric)

1163 CDC28 protein kinase regulatory subunit 1B

1164 CKS2 CDC28 protein kinase regulatory subunit 2

1195 CDC-like kinase 1

1196 CDC-like kinase 2

1198 CDC-like kinase 3

1263 polo-like kinase 3 (*Drosophila*)

1267 2',3'-cyclic nucleotide 3' phosphodiesterase

1326 mitogen-activated protein kinase kinase kinase 8

1399 v-crk sarcoma virus CT10 oncogene homolog (avian)-like
1432 mitogen-activated protein kinase 14
1436 colony stimulating factor 1 receptor, formerly McDonough feline
sarcoma viral (v-fms) oncogene homolog
1445 c-src tyrosine kinase
1452 casein kinase 1, alpha 1
1453 casein kinase 1, delta
1454 casein kinase 1, epsilon
1455 casein kinase 1, gamma 2
1456 casein kinase 1, gamma 3
1457 casein kinase 2, alpha 1 polypeptide
1459 casein kinase 2, alpha prime polypeptide
1460 casein kinase 2, beta polypeptide
1606 diacylglycerol kinase, alpha 80kDa
1607 diacylglycerol kinase, beta 90kDa
1608 diacylglycerol kinase, gamma 90kDa
1609 diacylglycerol kinase, theta 110kDa
1612 death-associated protein kinase 1
1613 death-associated protein kinase 3
1633 deoxycytidine kinase
1716 deoxyguanosine kinase
1739 discs, large homolog 1 (Drosophila)
1740 discs, large homolog 2, chapsyn-110 (Drosophila)
1741 discs, large homolog 3 (neuroendocrine-dlg, Drosophila)
1742 discs, large homolog 4 (Drosophila)
1760 dystrophia myotonica-protein kinase

1796 DOK1 docking protein 1, 62kDa (downstream of tyrosine kinase 1)

1841 deoxythymidylate kinase (thymidylate kinase)
1857 dishevelled, dsh homolog 3 (Drosophila)

1859 dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1A

1944 ephrin-A3
1945 ephrin-A4
1949 ephrin-B3
1956 epidermal growth factor receptor (erythroblastic leukemia viral (v-erb-
b) oncogene homolog, avian)
1969 EPH receptor A2
2011 MAP/microtubule affinity-regulating kinase 2
2041 EPH receptor A1
2042 EPH receptor A3
2043 EPH receptor A4
2044 EphA5; EPH receptor A5
2045 EPH receptor A7
2046 EPH receptor A8
2047 EPH receptor B1
2048 EPH receptor B2

2049 EPH receptor B3
2050 EPH receptor B4
2051 EPH receptor B6
2064 v-erb-b2 erythroblastic leukemia viral oncogene homolog 2,
neuro/glioblastoma derived oncogene homolog (avian)
2065 v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian)
2066 v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian)
2081 endoplasmic reticulum to nucleus signalling 1
2185 PTK2B protein tyrosine kinase 2 beta
2241 fer (fps/fes related) tyrosine kinase (phosphoprotein NCP94)
2242 feline sarcoma oncogene
2260 fibroblast growth factor receptor 1 (fms-related tyrosine kinase 2,
Pfeiffer syndrome)
2261 fibroblast growth factor receptor 3 (achondroplasia, thanatophoric
dwarfism)
2263 fibroblast growth factor receptor 2 (bacteria-expressed kinase,
keratinocyte growth factor receptor, craniofacial dysostosis 1,
Crouzon syndrome, Pfeiffer syndrome, Jackson-Weiss syndrome)
2264 fibroblast growth factor receptor 4
2268 Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog
2321 fms-related tyrosine kinase 1 (vascular endothelial growth
factor/vascular permeability factor receptor)
2322 fms-related tyrosine kinase 3
2323 FLT3LG fms-related tyrosine kinase 3 ligand
2324 fms-related tyrosine kinase 4
2395 frataxin
2444 fyn-related kinase
2475 FK506 binding protein 12-rapamycin associated protein 1
2534 FYN oncogene related to SRC, FGR, YES
2580 cyclin G associated kinase
2584 galactokinase 1
2585 galactokinase 2
2645 glucokinase (hexokinase 4, maturity onset diabetes of the young 2)
2710 glycerol kinase
2712 glycerol kinase 2
2713 glycerol kinase 3 pseudogene
2868 G protein-coupled receptor kinase 4
2869 G protein-coupled receptor kinase 5
2870 G protein-coupled receptor kinase 6
2872 MAP kinase interacting serine/threonine kinase 2
2931 glycogen synthase kinase 3 alpha
2932 glycogen synthase kinase 3 beta

2962 general transcription factor IIF, polypeptide 1, 74kDa
2965 general transcription factor IIH, polypeptide 1, 62kDa
2984 guanylate cyclase 2C (heat stable enterotoxin receptor)
2986 guanylate cyclase 2F, retinal
2987 guanylate kinase 1
3000 guanylate cyclase 2D, membrane (retina-specific)
3055 hemopoietic cell kinase
3098 hexokinase 1
3099 hexokinase 2
3101 hexokinase 3 (white cell)
3320 heat shock 90kDa protein 1, alpha
3326 heat shock 90kDa protein 1, beta
3364 HUS1 checkpoint homolog (S pombe)
3480 insulin-like growth factor 1 receptor
3482 insulin-like growth factor 2 receptor
3551 inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase
beta
3611 integrin linked kinase; integrin-linked kinase
3643 insulin receptor
3645 insulin receptor-related receptor
3654 interleukin-1 receptor-associated kinase 1
3656 interleukin-1 receptor-associated kinase 2
3702 IL2-inducible T-cell kinase
3705 inositol 1,3,4-triphosphate 5/6 kinase
3706 inositol 1,4,5-triphosphate 3-kinase A
3707 inositol 1,4,5-triphosphate 3-kinase B
3716 Janus kinase 1 (a protein tyrosine kinase)
3717 Janus kinase 2 (a protein tyrosine kinase)
3718 Janus kinase 3 (a protein tyrosine kinase, leukocyte)
3756 potassium voltage-gated channel, subfamily H (eag-related), member
1
3757 potassium voltage-gated channel, subfamily H (eag-related), member
2
3791 kinase insert domain receptor (a type III receptor tyrosine kinase)
3795 ketohexokinase (fructokinase)
3815 v-kit Hardy-Zuckerman 4 feline sarcoma viral oncogene homolog
3932 lymphocyte-specific protein tyrosine kinase
3984 LIM domain kinase 1
3985 LIM domain kinase 2
4052 latent transforming growth factor beta binding protein 1
4058 leukocyte tyrosine kinase
4067 v-yes-1 Yamaguchi sarcoma viral related oncogene homolog
4082 MARCKS myristoylated alanine-rich protein kinase C substrate
4117 male germ cell-associated kinase

4139 MAP/microtubule affinity-regulating kinase 1
4140 MAP/microtubule affinity-regulating kinase 3
4145 megakaryocyte-associated tyrosine kinase
4214 mitogen-activated protein kinase kinase kinase 1
4215 mitogen-activated protein kinase kinase kinase 3
4216 mitogen-activated protein kinase kinase kinase 4
4217 mitogen-activated protein kinase kinase kinase 5
4233 met proto-oncogene (hepatocyte growth factor receptor)
4292 mutL homolog 1, colon cancer, nonpolyposis type 2 (E. coli)
4293 mitogen-activated protein kinase kinase kinase 9
4294 mitogen-activated protein kinase kinase kinase 10
4296 mitogen-activated protein kinase kinase kinase 11
4297 myeloid/lymphoid or mixed-lineage leukemia (trithorax homolog, Drosophila)
4342 v-mos Moloney murine sarcoma viral oncogene homolog
4354 membrane protein, palmitoylated 1, 55kDa
4355 membrane protein, palmitoylated 2 (MAGUK p55 subfamily member 2)
4356 membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3)
4363 ATP-binding cassette, sub-family C (CFTR/MRP), member 1
4486 macrophage stimulating 1 receptor (c-met-related tyrosine kinase)
4593 muscle, skeletal, receptor tyrosine kinase
4597 mevalonate (diphospho) decarboxylase
4598 mevalonate kinase (mevalonic aciduria)
4638 myosin, light polypeptide kinase
4705 NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 10, 42kDa
4745 NEL-like 1 (chicken)
4750 NIMA (never in mitosis gene a)-related kinase 1
4751 NIMA (never in mitosis gene a)-related kinase 2
4752 NIMA (never in mitosis gene a)-related kinase 3
4830 non-metastatic cells 1, protein (NM23A) expressed in
4831 non-metastatic cells 2, protein (NM23B) expressed in
4832 non-metastatic cells 3, protein expressed in
4833 non-metastatic cells 4, protein expressed in
4881 natriuretic peptide receptor A/guanylate cyclase A (atrionatriuretic peptide receptor A)
4882 natriuretic peptide receptor B/guanylate cyclase B (atrionatriuretic peptide receptor B)
4900 NRGN neurogranin (protein kinase C substrate, RC3)
4914 neurotrophic tyrosine kinase, receptor, type 1
4915 neurotrophic tyrosine kinase, receptor, type 2
4916 neurotrophic tyrosine kinase, receptor, type 3
4919 receptor tyrosine kinase-like orphan receptor 1
4920 receptor tyrosine kinase-like orphan receptor 2

4921 discoidin domain receptor family, member 2
5058 p21/Cdc42/Rac1-activated kinase 1 (STE20 homolog, yeast)
5062 p21 (CDKN1A)-activated kinase 2
5063 p21 (CDKN1A)-activated kinase 3
5105 phosphoenolpyruvate carboxykinase 1 (soluble)
5106 phosphoenolpyruvate carboxykinase 2 (mitochondrial)
5127 PCTAIRE protein kinase 1
5128 PCTAIRE protein kinase 2
5129 PCTAIRE protein kinase 3
5156 platelet-derived growth factor receptor, alpha polypeptide
5157 platelet-derived growth factor receptor-like
5159 platelet-derived growth factor receptor, beta polypeptide
5163 pyruvate dehydrogenase kinase, isoenzyme 1
5164 pyruvate dehydrogenase kinase, isoenzyme 2
5165 pyruvate dehydrogenase kinase, isoenzyme 3
5166 pyruvate dehydrogenase kinase, isoenzyme 4
5170 hypothetical protein FLJ39075; 3-phosphoinositide dependent protein kinase-1
5207 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 1
5208 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 2
5209 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 3
5210 6-phosphofructo-2-kinase/fructose-2,6-biphosphatase 4
5211 phosphofructokinase, liver
5213 phosphofructokinase, muscle
5214 phosphofructokinase, platelet
5218 PFTAIRE protein kinase 1
5230 phosphoglycerate kinase 1
5232 phosphoglycerate kinase 2
5255 phosphorylase kinase, alpha 1 (muscle)
5256 phosphorylase kinase, alpha 2 (liver)
5257 phosphorylase kinase, beta
5260 phosphorylase kinase, gamma 1 (muscle)
5261 phosphorylase kinase, gamma 2 (testis)
5286 phosphoinositide-3-kinase, class 2, alpha polypeptide
5287 phosphoinositide-3-kinase, class 2, beta polypeptide
5288 phosphoinositide-3-kinase, class 2, gamma polypeptide
5289 phosphoinositide-3-kinase, class 3
5290 phosphoinositide-3-kinase, catalytic, alpha polypeptide
5291 phosphoinositide-3-kinase, catalytic, beta polypeptide
5292 pim-1 oncogene
5293 phosphoinositide-3-kinase, catalytic, delta polypeptide
5294 phosphoinositide-3-kinase, catalytic, gamma polypeptide
5295 PIK3R1 phosphoinositide-3-kinase, regulatory subunit 1 (p85 alpha)
5296 phosphoinositide-3-kinase, regulatory subunit 2 (p85 beta)
5297 phosphatidylinositol 4-kinase, catalytic, alpha polypeptide
5298 phosphatidylinositol 4-kinase, catalytic, beta polypeptide

5305 phosphatidylinositol-4-phosphate 5-kinase, type II, alpha
5313 pyruvate kinase, liver and RBC
5315 pyruvate kinase, muscle
5328 plasminogen activator, urokinase
5347 polo-like kinase 1 (*Drosophila*)
5378 PMS1 postmeiotic segregation increased 1 (*S. cerevisiae*)
5394 exosome component 10
5395 PMS2 postmeiotic segregation increased 2 (*S. cerevisiae*)
5531 protein phosphatase 4 (formerly X), catalytic subunit
5562 protein kinase, AMP-activated, alpha 1 catalytic subunit
5563 protein kinase, AMP-activated, alpha 2 catalytic subunit
5564 PRKAB1 protein kinase, AMP-activated, beta 1 non-catalytic subunit
5565 PRKAB2 protein kinase, AMP-activated, beta 2 non-catalytic subunit
5566 protein kinase, cAMP-dependent, catalytic, alpha
5567 protein kinase, cAMP-dependent, catalytic, beta
5568 protein kinase, cAMP-dependent, catalytic, gamma
5569 PKIA protein kinase (cAMP-dependent, catalytic) inhibitor alpha
5570 protein kinase (cAMP-dependent, catalytic) inhibitor beta
5571 protein kinase, AMP-activated, gamma 1 non-catalytic subunit
5573 protein kinase, cAMP-dependent, regulatory, type I, alpha (tissue specific extinguisher 1)
5575 PRKAR1B protein kinase, cAMP-dependent, regulatory, type I, beta
5576 protein kinase, cAMP-dependent, regulatory, type II, alpha
5577 PRKAR2B protein kinase, cAMP-dependent, regulatory, type II, beta
5578 protein kinase C, alpha
5579 protein kinase C, beta 1
5580 protein kinase C, delta
5581 protein kinase C, epsilon
5582 protein kinase C, gamma
5583 protein kinase C, eta
5584 protein kinase C, iota
5585 protein kinase N1
5586 protein kinase N2
5587 protein kinase D1
5588 protein kinase C, theta
5590 protein kinase C, zeta
5591 protein kinase, DNA-activated, catalytic polypeptide
5592 protein kinase, cGMP-dependent, type I
5593 protein kinase, cGMP-dependent, type II
5594 mitogen-activated protein kinase 1
5595 mitogen-activated protein kinase 3

5596 mitogen-activated protein kinase 4
5597 mitogen-activated protein kinase 6
5598 mitogen-activated protein kinase 7
5599 mitogen-activated protein kinase 8
5600 mitogen-activated protein kinase 11
5601 mitogen-activated protein kinase 9
5602 mitogen-activated protein kinase 10
5603 mitogen-activated protein kinase 13
5604 mitogen-activated protein kinase kinase 1
5605 mitogen-activated protein kinase kinase 2
5606 mitogen-activated protein kinase kinase 3
5607 mitogen-activated protein kinase kinase 5
5608 mitogen-activated protein kinase kinase 6
5609 mitogen-activated protein kinase kinase 7
5610 eukaryotic translation initiation factor 2-alpha kinase 2
5612 PRKRIR protein-kinase, interferon-inducible double stranded RNA
dependent inhibitor, repressor of (P58 repressor)
5613 protein kinase, X-linked
5616 protein kinase, Y-linked
5631 phosphoribosyl pyrophosphate synthetase 1
5634 phosphoribosyl pyrophosphate synthetase 2
5635 phosphoribosyl pyrophosphate synthetase-associated protein 1
5636 phosphoribosyl pyrophosphate synthetase-associated protein 2
5651 PRSS7 protease, serine, 7 (enterokinase)
5681 protein serine kinase H1
5747 PTK2 protein tyrosine kinase 2
5753 PTK6 protein tyrosine kinase 6
5754 PTK7 protein tyrosine kinase 7
5756 PTK9 protein tyrosine kinase 9
5832 aldehyde dehydrogenase 18 family, member A1
5871 mitogen-activated protein kinase kinase kinase kinase 2
5891 renal tumor antigen
5894 v-raf-1 murine leukemia viral oncogene homolog 1
5970 v-rel reticuloendotheliosis viral oncogene homolog A, nuclear factor of
kappa light polypeptide gene enhancer in B-cells 3, p65 (avian)
5979 ret proto-oncogene
5987 tripartite motif-containing 27
6011 G protein-coupled receptor kinase 1
6041 ribonuclease L (2',5'-oligoadenylate synthetase-dependent)
6046 bromodomain containing 2
6093 Rho-associated, coiled-coil containing protein kinase 1
6098 v-ros UR2 sarcoma virus oncogene homolog 1 (avian)
6102 retinitis pigmentosa 2 (X-linked recessive)

6195 ribosomal protein S6 kinase, 90kDa, polypeptide 1
6196 ribosomal protein S6 kinase, 90kDa, polypeptide 2
6197 ribosomal protein S6 kinase, 90kDa, polypeptide 3
6198 ribosomal protein S6 kinase, 70kDa, polypeptide 1
6199 ribosomal protein S6 kinase, 70kDa, polypeptide 2
6259 RYK receptor-like tyrosine kinase
6300 mitogen-activated protein kinase 12
6347 chemokine (C-C motif) ligand 2
6351 chemokine (C-C motif) ligand 4
6416 mitogen-activated protein kinase kinase 4; mitogen-activated protein
kinase kinase 4 pseudogene
6446 serum/glucocorticoid regulated kinase
6500 SKP1A S-phase kinase-associated protein 1A (p19A)
6502 SKP2 S-phase kinase-associated protein 2 (p45)
6714 v-src sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (avian)
6725 src-related kinase lacking C-terminal regulatory tyrosine and N-
terminal myristylation sites
6731 signal recognition particle 72kDa
6732 SFRS protein kinase 1
6733 SFRS protein kinase 2
6738 TROVE domain family, member 2
6787 NIMA (never in mitosis gene a)-related kinase 4
6788 serine/threonine kinase 3 (STE20 homolog, yeast)
6789 serine/threonine kinase 4
6790 serine/threonine kinase 6
6792 cyclin-dependent kinase-like 5
6793 serine/threonine kinase 10
6794 serine/threonine kinase 11
6795 aurora kinase C
6850 spleen tyrosine kinase
6872 TAF1 RNA polymerase II, TATA box binding protein (TBP)-associated
factor, 250kDa
6880 TAF9 RNA polymerase II, TATA box binding protein (TBP)-associated
factor, 32kDa
6885 mitogen-activated protein kinase kinase kinase 7
7006 tec protein tyrosine kinase
7010 TEK tyrosine kinase, endothelial (venous malformations, multiple
cutaneous and mucosal)
7016 testis-specific kinase 1
7046 transforming growth factor, beta receptor I (activin A receptor type II-
like kinase, 53kDa)
7048 transforming growth factor, beta receptor II (70/80kDa)
7075 tyrosine kinase with immunoglobulin-like and EGF-like domains 1
7082 tight junction protein 1 (zona occludens 1)
7083 thymidine kinase 1, soluble

7084 thymidine kinase 2, mitochondrial
7153 topoisomerase (DNA) II alpha 170kDa
7155 topoisomerase (DNA) II beta 180kDa
7184 tumor rejection antigen (gp96) 1
7204 triple functional domain (PTPRF interacting)
7272 TTK protein kinase
7273 titin
7294 TXK tyrosine kinase
7297 tyrosine kinase 2
7301 TYRO3 protein tyrosine kinase
7305 TYROBP TYRO protein tyrosine kinase binding protein
7360 UGP2 UDP-glucose pyrophosphorylase 2
7371 uridine-cytidine kinase 2
7443 vaccinia related kinase 1
7444 vaccinia related kinase 2
7465 WEE1 homolog (S. pombe)
7525 v-yes-1 Yamaguchi sarcoma viral oncogene homolog 1
7535 zeta-chain (TCR) associated protein kinase 70kDa
7786 mitogen-activated protein kinase kinase kinase 12
7799 PR domain containing 2, with ZNF domain
7867 mitogen-activated protein kinase-activated protein kinase 3
8019 bromodomain containing 3
8165 AKAP1 A kinase (PRKA) anchor protein 1
8295 transformation/transcription domain-associated protein
8317 CDC7 cell division cycle 7 (S. cerevisiae)
8382 non-metastatic cells 5, protein expressed in (nucleoside-diphosphate kinase)
8394 phosphatidylinositol-4-phosphate 5-kinase, type I, alpha
8395 phosphatidylinositol-4-phosphate 5-kinase, type I, beta
8396 phosphatidylinositol-4-phosphate 5-kinase, type II, beta
8408 unc-51-like kinase 1 (C. elegans)
8425 latent transforming growth factor beta binding protein 4
8428 serine/threonine kinase 24 (STE20 homolog, yeast)
8444 dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 3
8445 dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 2
8476 CDC42 binding protein kinase alpha (DMPK-like)
8491 mitogen-activated protein kinase kinase kinase kinase 3
8503 phosphoinositide-3-kinase, regulatory subunit 3 (p55, gamma)
8517 inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase gamma
8518 inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase complex-associated protein
8525 diacylglycerol kinase, zeta 104kDa
8526 diacylglycerol kinase, epsilon 64kDa

8527 diacylglycerol kinase, delta 130kDa
8536 calcium/calmodulin-dependent protein kinase I
8550 mitogen-activated protein kinase-activated protein kinase 5
8558 cyclin-dependent kinase (CDC2-like) 10
8566 pyridoxal (pyridoxine, vitamin B6) kinase
8567 MADD MAP-kinase activating death domain
8569 MAP kinase interacting serine/threonine kinase 1

8573 calcium/calmodulin-dependent serine protein kinase (MAGUK family)

8575 PRKRA protein kinase, interferon-inducible double stranded RNA
dependent activator
8576 serine/threonine kinase 16
8621 cell division cycle 2-like 5 (cholinesterase-related cell division
controller)
8649 MAP2K1IP1 mitogen-activated protein kinase kinase 1 interacting
protein 1
8711 tyrosine kinase, non-receptor, 1
8737 receptor (TNFRSF)-interacting serine-threonine kinase 1
8767 receptor-interacting serine-threonine kinase 2
8780 RIO kinase 3 (yeast)

8798 dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 4

8805 tripartite motif-containing 24
8814 cyclin-dependent kinase-like 1 (CDC2-related kinase)
8828 neuropilin 2
8829 neuropilin 1
8844 kinase suppressor of ras
8851 cyclin-dependent kinase 5, regulatory subunit 1 (p35)
8852 AKAP4 A kinase (PRKA) anchor protein 4
8859 serine/threonine kinase 19
8877 sphingosine kinase 1
8895 copine III
8899 PRP4 pre-mRNA processing factor 4 homolog B (yeast)
8941 CDK5R2 cyclin-dependent kinase 5, regulatory subunit 2 (p39)
8986 ribosomal protein S6 kinase, 90kDa, polypeptide 4
8997 kalirin, RhoGEF kinase
8999 cyclin-dependent kinase-like 2 (CDC2-related kinase)
9020 mitogen-activated protein kinase kinase kinase 14
9024 BR serine/threonine kinase 2
9060 3'-phosphoadenosine 5'-phosphosulfate synthase 2
9061 3'-phosphoadenosine 5'-phosphosulfate synthase 1
9064 mitogen-activated protein kinase kinase kinase 6
9088 protein kinase, membrane associated tyrosine/threonine 1
9113 LATS, large tumor suppressor, homolog 1 (Drosophila)
9146 HGS hepatocyte growth factor-regulated tyrosine kinase substrate

9149 dual-specificity tyrosine-(Y)-phosphorylation regulated kinase 1B
9162 diacylglycerol kinase, iota
9175 mitogen-activated protein kinase kinase kinase 13
9201 doublecortin and CaM kinase-like 1
9212 aurora kinase B
9223 membrane associated guanylate kinase, WW and PDZ domain containing 1
9231 discs, large homolog 5 (Drosophila)
9238 transforming growth factor beta regulator 4
9252 ribosomal protein S6 kinase, 90kDa, polypeptide 5
9261 mitogen-activated protein kinase-activated protein kinase 2
9262 serine/threonine kinase 17b (apoptosis-inducing)
9263 serine/threonine kinase 17a (apoptosis-inducing)
9344 TAO kinase 2
9414 tight junction protein 2 (zona occludens 2)
9448 mitogen-activated protein kinase kinase kinase kinase 4
9451 eukaryotic translation initiation factor 2-alpha kinase 3
9463 PICK1 protein interacting with PRKCA 1
9465 AKAP7 A kinase (PRKA) anchor protein 7
9472 AKAP6 A kinase (PRKA) anchor protein 6
9475 Rho-associated, coiled-coil containing protein kinase 2
9479 mitogen-activated protein kinase 8 interacting protein 1
9495 AKAP5 A kinase (PRKA) anchor protein 5
9578 CDC42 binding protein kinase beta (DMPK-like)
9590 AKAP12 A kinase (PRKA) anchor protein (gravin) 12
9625 apoptosis-associated tyrosine kinase
9641 inhibitor of kappa light polypeptide gene enhancer in B-cells, kinase epsilon
9706 unc-51-like kinase 2 (C. elegans)
9748 STE20-like kinase (yeast)
9807 inositol hexaphosphate kinase 1
9815 GIT2 G protein-coupled receptor kinase interactor 2
9833 maternal embryonic leucine zipper kinase
9863 membrane associated guanylate kinase, WW and PDZ domain containing 2
9874 tousled-like kinase 1
9891 NUAK family, SNF1-like kinase, 1; ZNUAK family, SNF1-like kinase, 1; similar to Probable serine/threonine-protein kinase KIAA0537 (predicted)
9941 endonuclease G-like 1
9942 xylulokinase homolog (H. influenzae)
9943 oxidative-stress responsive 1
9950 golgi autoantigen, golgin subfamily a, 5
10000 v-akt murine thymoma viral oncogene homolog 3 (protein kinase B, gamma)

10020 glucosamine (UDP-N-acetyl)-2-epimerase/N-acetylmannosamine kinase

10087 collagen, type IV, alpha 3 (Goodpasture antigen) binding protein

10110 serum/glucocorticoid regulated kinase 2

10114 homeodomain interacting protein kinase 3

10131 TNF receptor-associated protein 1

10142 A kinase (PRKA) anchor protein (yotiao) 9

10155 tripartite motif-containing 28

10188 tyrosine kinase, non-receptor, 2

10201 non-metastatic cells 6, protein expressed in (nucleoside-diphosphate kinase)

10221 tribbles homolog 1 (Drosophila)

10235 RAS guanyl releasing protein 2 (calcium and DAG-regulated)

10256 CNKSR1 connector enhancer of kinase suppressor of Ras 1

10270 AKAP8 A kinase (PRKA) anchor protein 8

10290 SPEG complex locus

10295 branched chain ketoacid dehydrogenase kinase

10298 p21(CDKN1A)-activated kinase 4

10342 TRK-fused gene

10349 ATP-binding cassette, sub-family A (ABC1), member 10

10420 testis-specific kinase 2

10454 mitogen-activated protein kinase kinase kinase 7 interacting protein 1

10461 c-mer proto-oncogene tyrosine kinase

10494 serine/threonine kinase 25 (STE20 homolog, yeast)

10518 CIB2 calcium and integrin binding family member 2

10566 AKAP3 A kinase (PRKA) anchor protein 3

10595 endoplasmic reticulum to nucleus signalling 2

10611 PDLIM5 PDZ and LIM domain 5

10645 calcium/calmodulin-dependent protein kinase kinase 2, beta

10654 phosphomevalonate kinase

10733 polo-like kinase 4 (Drosophila)

10746 mitogen-activated protein kinase kinase kinase 2

10769 polo-like kinase 2 (Drosophila)

10783 NIMA (never in mitosis gene a)-related kinase 6

10922 Fas-activated serine/threonine kinase

10926 DBF4 DBF4 homolog (S. cerevisiae)

11011 tousled-like kinase 2

11035 receptor-interacting serine-threonine kinase 3

11040 pim-2 oncogene

11046 solute carrier family 35, member D2

11113 citron (rho-interacting, serine/threonine kinase 21)

11142 PKIG protein kinase (cAMP-dependent, catalytic) inhibitor gamma

11183 mitogen-activated protein kinase kinase kinase kinase 5

11184 mitogen-activated protein kinase kinase kinase kinase 1

11197 WNT inhibitory factor 1
11200 CHK2 checkpoint homolog (S. pombe)
11213 interleukin-1 receptor-associated kinase 3
11214 AKAP13 A kinase (PRKA) anchor protein 13
11215 AKAP11 A kinase (PRKA) anchor protein 11
11216 A kinase (PRKA) anchor protein 10

11252 PACSIN2 protein kinase C and casein kinase substrate in neurons 2

11284 polynucleotide kinase 3\
11321 XPA binding protein 1
11329 serine/threonine kinase 38
11344 PTK9L protein tyrosine kinase 9-like (A6-related protein)
22848 AP2 associated kinase 1
22853 lemur tyrosine kinase 2
22858 intestinal cell (MAK-like) kinase
22868 FAST kinase domains 2
22891 zinc finger protein 365
22901 arylsulfatase G
22928 selenophosphate synthetase 2
22929 selenophosphate synthetase 1
22983 microtubule associated serine/threonine kinase 1
22986 SORCS3 sortilin-related VPS10 domain containing receptor 3
23005 MAPKBP1 mitogen activated protein kinase binding protein 1
23012 serine/threonine kinase 38 like
23022 palladin, cytoskeletal associated protein
23031 microtubule associated serine/threonine kinase 3
23043 TRAF2 and NCK interacting kinase
23049 PI-3-kinase-related kinase SMG-1
23092 ARHGAP26 Rho GTPase activating protein 26
23097 cell division cycle 2-like 6 (CDK8-like)
MAP3K7IP2 mitogen-activated protein kinase kinase kinase 7
23118 interacting protein 2
23139 microtubule associated serine/threonine kinase 2

23162 MAPK8IP3 mitogen-activated protein kinase 8 interacting protein 3
23178 PAS domain containing serine/threonine kinase

23227 microtubule associated serine/threonine kinase family member 4

23235 SNF1-like kinase 2
23363 obscurin-like 1
23387 KIAA0999 protein
23396 phosphatidylinositol-4-phosphate 5-kinase, type I, gamma
23415 potassium voltage-gated channel, subfamily H (eag-related), member
4
23416 potassium voltage-gated channel, subfamily H (eag-related), member
3
23476 bromodomain containing 4

23515 MORC family CW-type zinc finger 3
23533 PIK3R5 phosphoinositide-3-kinase, regulatory subunit 5, p101
23542 MAPK8IP2 mitogen-activated protein kinase 8 interacting protein 2
23552 cell cycle related kinase
23604 death-associated protein kinase 2
23613 zinc finger, MYND-type containing 8
23617 testis-specific serine kinase 2
23636 nucleoporin 62kDa
23678 serum/glucocorticoid regulated kinase-like
23683 protein kinase D3
23729 carbohydrate kinase-like
25778 receptor interacting protein kinase 5
25865 protein kinase D2
25989 unc-51-like kinase 3 (C. elegans)
25998 IBTK inhibitor of Bruton agammaglobulinemia tyrosine kinase
26007 dihydroxyacetone kinase 2 homolog (S cerevisiae)
26289 adenylate kinase 5
26353 heat shock 22kDa protein 8
26524 LATS, large tumor suppressor, homolog 2 (Drosophila)
26576 serine/threonine kinase 23
26750 ribosomal protein S6 kinase, 52kDa, polypeptide 1
26993 AKAP8L A kinase (PRKA) anchor protein 8-like
27010 thiamin pyrophosphokinase 1
27030 mutL homolog 3 (E. coli)
27102 eukaryotic translation initiation factor 2-alpha kinase 1
27133 potassium voltage-gated channel, subfamily H (eag-related), member 5
27136 MORC family CW-type zinc finger 1
27148 serine/threonine kinase 36 (fused homolog, Drosophila)
27231 integrin beta 1 binding protein 3
27330 ribosomal protein S6 kinase, 90kDa, polypeptide 6
27347 serine threonine kinase 39 (STE20/SPS1 homolog, yeast)
28951 tribbles homolog 2 (Drosophila)
28964 G protein-coupled receptor kinase interactor 1
28996 homeodomain interacting protein kinase 2
29110 TANK-binding kinase 1
29763 PACSIN3 protein kinase C and casein kinase substrate in neurons 3
29904 eukaryotic elongation factor-2 kinase
29922 non-metastatic cells 7, protein expressed in (nucleoside-diphosphate kinase)
29941 protein kinase N3
29959 nuclear receptor binding protein
29993 protein kinase C and casein kinase substrate in neurons 1
30011 SH3-domain kinase binding protein 1
30811 hormonally upregulated Neu-associated kinase

30849 phosphoinositide-3-kinase, regulatory subunit 4, p150
50488 misshapen-like kinase 1 (zebrafish)
50808 adenylate kinase 3
51086 TNNI3 interacting kinase
51135 interleukin-1 receptor-associated kinase 4
51231 vaccinia related kinase 3
51232 cysteine rich transmembrane BMP regulator 1 (chordin-like)
51265 cyclin-dependent kinase-like 3
51314 thioredoxin domain containing 3 (spermatozoa)
51347 TAO kinase 3
51422 PRKAG2 protein kinase, AMP-activated, gamma 2 non-catalytic subunit
51447 inositol hexaphosphate kinase 2
51530 ZC3HC1 zinc finger, C3HC-type containing 1
51550 cyclin-dependent kinase 2-interacting protein
51592 tripartite motif-containing 33
51678 membrane protein, palmitoylated 6 (MAGUK p55 subfamily member 6)
51701 nemo like kinase
51727 cytidylate kinase
51755 -; CDC2-related protein kinase 7
51765 Mst3 and SOK1-related kinase
51776 sterile alpha motif and leucine zipper containing kinase AZK
53354 pantothenate kinase 1
53632 protein kinase, AMP-activated, gamma 3 non-catalytic subunit
53834 fibroblast growth factor receptor-like 1
53904 myosin IIIA
53944 casein kinase 1, gamma 1
54101 receptor-interacting serine-threonine kinase 4
54386 telomeric repeat binding factor 2, interacting protein
54707 hypothetical protein FLJ10349
54822 transient receptor potential cation channel, subfamily M, member 7
54861 SNF related kinase
54867 hypothetical protein FLJ20254
54869 EPS8L1 EPS8-like 1
54875 chromosome 9 open reading frame 39
54899 PX domain containing serine/threonine kinase
54963 uridine-cytidine kinase 1-like 1
54981 chromosome 9 open reading frame 95
54986 unc-51-like kinase 4 (C. elegans)
54998 AURKAIP1 aurora kinase A interacting protein 1
55137 fidgetin
55197 hypothetical protein FLJ10656
55224 ethanolamine kinase 2
55229 pantothenate kinase 4

55277 hypothetical protein FLJ10986
55300 phosphatidylinositol 4-kinase type-II beta
55312 riboflavin kinase
55351 serine/threonine kinase 32B
55359 serine/threonine/tyrosine kinase 1
55361 phosphatidylinositol 4-kinase type II
55437 amyotrophic lateral sclerosis 2 (juvenile) chromosome region,
candidate 2
55450 calcium/calmodulin-dependent protein kinase II inhibitor 1
55500 ethanolamine kinase 1
55561 CDC42 binding protein kinase gamma (DMPK-like)
55577 N-acetylglucosamine kinase
55589 BMP2 inducible kinase
55681 SCY1-like 2 (*S. cerevisiae*)
55728 Nedd4 binding protein 2
55739 hypothetical protein FLJ10769
55750 multiple substrate lipid kinase
55781 RIO kinase 2 (yeast)
55872 PDZ binding kinase
55971 BAIAP2L1 BAI1-associated protein 2-like 1
56155 testis expressed 14
56164 serine/threonine kinase 31
56672 NUAK family, SNF1-like kinase, 2; chromosome 11 open reading frame
17
56848 sphingosine kinase 2
56897 Werner helicase interacting protein 1
56924 p21(CDKN1A)-activated kinase 6
56990 CDC42 small effector 2
56997 chaperone, ABC1 activity of bc1 complex like (*S. pombe*)
57091 chromosome 20 open reading frame 32
57118 calcium/calmodulin-dependent protein kinase ID
57143 aarF domain containing kinase 1
57144 p21(CDKN1A)-activated kinase 7
57147 SCY1-like 3 (*S. cerevisiae*)
57172 calcium/calmodulin-dependent protein kinase IG
57396 CDC-like kinase 4
57410 SCY1-like 1 (*S. cerevisiae*)
57498 KIDINS220 kinase D-interacting substance of 220 kDa
57538 alpha-kinase 3
57551 TAO kinase 1
57596 KIAA1446 likely ortholog of rat brain-enriched guanylate kinase-
associated protein
57761 tribbles homolog 3 (*Drosophila*)
57787 MAP/microtubule affinity-regulating kinase 4
58538 membrane protein, palmitoylated 4 (MAGUK p55 subfamily member
4)
60385 TSKS testis-specific kinase substrate

60493 FAST kinase domains 5
63904 dual specificity phosphatase 21
64080 ribokinase
64122 fructosamine 3 kinase
64149 protein kinase Njmu-R1
64172 O-sialoglycoprotein endopeptidase-like 1
64398 membrane protein, palmitoylated 5 (MAGUK p55 subfamily member 5)

64710 NUCKS1 nuclear casein kinase and cyclin-dependent kinase substrate 1

64768 inositol 1,3,4,5,6-pentakisphosphate 2-kinase
64781 ceramide kinase
65018 PTEN induced putative kinase 1
65061 amyotrophic lateral sclerosis 2 (juvenile) chromosome region, candidate 7
65125 WNK lysine deficient protein kinase 1
65220 NAD kinase
65266 WNK lysine deficient protein kinase 4
65267 WNK lysine deficient protein kinase 3
65268 WNK lysine deficient protein kinase 2
65975 serine/threonine kinase 33
78986 dual specificity phosphatase 26 (putative)
79012 CaM kinase-like vesicle-associated
79072 FAST kinase domains 3
79092 caspase recruitment domain family, member 14
79109 mitogen-activated protein kinase associated protein 1
79136 lymphocyte antigen 6 complex, locus G6E
79269 WD repeat domain 32
79646 pantothenate kinase 3
79672 fructosamine-3-kinase-related protein
79675 FAST kinase domains 1
79705 leucine-rich repeat kinase 1
79834 KIAA2002 protein
79837 phosphatidylinositol-4-phosphate 5-kinase, type II, gamma
79858 NIMA (never in mitosis gene a)- related kinase 11
79877 dephospho-CoA kinase domain containing
79896 threonine synthase-like 1 (*S cerevisiae*)
79934 aarF domain containing kinase 4
80025 pantothenate kinase 2 (Hallervorden-Spatz syndrome)
80122 yeast Sps1/Ste20-related kinase 4 (*S cerevisiae*)
80174 DBF4 homolog B (*S cerevisiae*)
80201 hexokinase domain containing 1
80216 alpha-kinase 1
80271 inositol 1,4,5-trisphosphate 3-kinase C
80309 SKIP SPHK1 (sphingosine kinase type 1) interacting protein
80318 G kinase anchoring protein 1
80342 TRAF3IP3 TRAF3 interacting protein 3

80347 Coenzyme A synthase
81602 cytidine and dCMP deaminase domain containing 1
81629 testis-specific serine kinase 3
81788 NUAK family, SNF1-like kinase, 2
81858 SHARPIN SHANK-associated RH domain interactor
83440 ADP-dependent glucokinase
83549 uridine-cytidine kinase 1
83694 ribosomal protein S6 kinase-like 1
83732 RIO kinase 1 (yeast)
83752 peroxisomal lon protease
83872 hemicentin 1
83903 germ cell associated 2 (haspin)
83931 serine/threonine kinase 40
83942 testis-specific serine kinase 1
83983 testis-specific serine kinase 6

84033 obscurin, cytoskeletal calmodulin and titin-interacting RhoGEF

84197 hypothetical protein FLJ23356

84254 calcium/calmodulin-dependent protein kinase kinase 1, alpha

84284 chromosome 1 open reading frame 57
84446 BR serine/threonine kinase 1
84451 mixed lineage kinase 4
84630 tau tubulin kinase 1
84926 SPRY domain containing 3
84930 microtubule associated serine/threonine kinase-like
85006 C21orf124 chromosome 21 open reading frame 124
85366 myosin light chain kinase 2, skeletal muscle; myosin, light polypeptide kinase 2, skeletal muscle

85442 kinase non-catalytic C-lobe domain (KIND) containing 1
85443 doublecortin and CaM kinase-like 3
85481 protein serine kinase H2
89882 tumor protein D52-like 3
90956 aarF domain containing kinase 2
91419 XRCC6 binding protein 1
91461 hypothetical protein BC007901
91754 NIMA (never in mitosis gene a)- related kinase 9
91807 cardiac-MyBP-C associated Ca/CaM kinase
92241 RCSD domain containing 1
92335 protein kinase LYK5
93627 hypothetical protein MGC16169
94032 calcium/calmodulin-dependent protein kinase II inhibitor 2
112464 protein kinase C, delta binding protein
112858 TP53 regulating kinase
114299 paralemmin 2
114783 lemur tyrosine kinase 3
114790 serine/threonine kinase 11 interacting protein

115701 alpha-kinase 2
117283 inositol hexaphosphate kinase 3
117286 CIB3 calcium and integrin binding family member 3
118672 chromosome 10 open reading frame 89
118788 phosphoinositide-3-kinase adaptor protein 1
120892 leucine-rich repeat kinase 2
122481 adenylate kinase 7
124923 hypothetical protein FLJ25006
126520 hypothetical protein LOC126520
127933 U2AF homology motif (UHM) kinase 1
129607 hypothetical protein LOC129607
130399 activin A receptor, type IC
131096 potassium voltage-gated channel, subfamily H (eag-related), member 8
132158 glycerate kinase
134728 interleukin-1 receptor-associated kinase 1 binding protein 1
136332 hypothetical protein FLJ32786
138474 TAF1-like RNA polymerase II, TATA box binding protein (TBP)-associated factor, 210kDa
140469 myosin IIIB
140609 NIMA (never in mitosis gene a)-related kinase 7
140803 transient receptor potential cation channel, subfamily M, member 6
140901 serine/threonine kinase 35
146057 tau tubulin kinase 2
147746 homeodomain interacting protein kinase 4
148932 MOB1, Mps One Binder kinase activator-like 2C (yeast)
149420 PDLIM1 interacting kinase 1 like
150094 SNF1-like kinase
151525 WDSUB1 WD repeat, sterile alpha motif and U-box domain containing 1
152110 NIMA (never in mitosis gene a)- related kinase 10
152789 janus kinase and microtubule interacting protein 1
154043 CNKSR3 CNKSR family member 3
157285 homolog of rat pragma of Rnd2
157567 hypothetical protein LOC157567
158067 chromosome 9 open reading frame 98
158798 AKAP14 A kinase (PRKA) anchor protein 14
160851 diacylglycerol kinase, eta
161635 LOC161635 similar to casein kinase I alpha
162417 N-acetylglutamate synthase
166614 doublecortin and CaM kinase-like 2
166752 FRAS1 related extracellular matrix 3
166929 sphingomyelin synthase 2
167359 hypothetical protein MGC42105
169436 chromosome 9 open reading frame 96
197258 fucokinase

197259 mixed lineage kinase domain-like
200576 phosphatidylinositol-3-phosphate/phosphatidylinositol 5-kinase, type III
202374 serine/threonine kinase 32A
203054 aarF domain containing kinase 5
203447 Nik related kinase
204851 homeodomain interacting protein kinase 1
220047 coiled-coil domain containing 83
221264 chromosome 6 open reading frame 199
221823 phosphoribosyl pyrophosphate synthetase 1-like 1
225689 mitogen-activated protein kinase 15
253430 inositol polyphosphate multikinase

255967 PAN3 polyA specific ribonuclease subunit homolog (*S cerevisiae*)

256356 glycerol kinase 5 (putative)
259230 sphingomyelin synthase 1
260425 membrane associated guanylate kinase, WW and PDZ domain containing 3
282974 serine/threonine kinase 32C
283455 kinase suppressor of ras 2
283629 testis-specific serine kinase 4
284086 NIMA (never in mitosis gene a)- related kinase 8
284656 EPH receptor A10
285220 EPH receptor A6
285313 immunoglobulin superfamily, member 10
340156 hypothetical protein LOC340156
340371 nuclear receptor binding protein 2
347736 thioredoxin domain containing 6
375298 ceramide kinase-like

375449 microtubule associated serine/threonine kinase family member 4

388121 tumor necrosis factor, alpha-induced protein 8-like 3
388228 SH3-binding domain kinase 1
389840 mitogen-activated protein kinase kinase kinase 15
414328 chromosome 9 open reading frame 103
415116 pim-3 oncogene
440275 eukaryotic translation initiation factor 2 alpha kinase 4