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| Supplemental Table 1. Genes in the KEGG PI3K/AKT signaling pathway | | |
| Gene ID | Gene Name | Description |
| 1950 | EGF | epidermal growth factor [KO:K04357] |
| 2246 | FGF1 | fibroblast growth factor 1 [KO:K18496] |
| 2247 | FGF2 | fibroblast growth factor 2 [KO:K18497] |
| 2248 | FGF3 | fibroblast growth factor 3 [KO:K04358] |
| 2249 | FGF4 | fibroblast growth factor 4 [KO:K04358] |
| 8822 | FGF17 | fibroblast growth factor 17 [KO:K04358] |
| 2251 | FGF6 | fibroblast growth factor 6 [KO:K04358] |
| 2252 | FGF7 | fibroblast growth factor 7 [KO:K04358] |
| 2253 | FGF8 | fibroblast growth factor 8 [KO:K04358] |
| 2254 | FGF9 | fibroblast growth factor 9 [KO:K04358] |
| 2255 | FGF10 | fibroblast growth factor 10 [KO:K04358] |
| 2256 | FGF11 | fibroblast growth factor 11 [KO:K04358] |
| 2257 | FGF12 | fibroblast growth factor 12 [KO:K04358] |
| 2258 | FGF13 | fibroblast growth factor 13 [KO:K04358] |
| 2259 | FGF14 | fibroblast growth factor 14 [KO:K04358] |
| 8823 | FGF16 | fibroblast growth factor 16 [KO:K04358] |
| 2250 | FGF5 | fibroblast growth factor 5 [KO:K04358] |
| 8817 | FGF18 | fibroblast growth factor 18 [KO:K04358] |
| 9965 | FGF19 | fibroblast growth factor 19 [KO:K04358] |
| 26281 | FGF20 | fibroblast growth factor 20 [KO:K04358] |
| 26291 | FGF21 | fibroblast growth factor 21 [KO:K04358] |
| 27006 | FGF22 | fibroblast growth factor 22 [KO:K04358] |
| 8074 | FGF23 | fibroblast growth factor 23 [KO:K04358] |
| 4803 | NGF | nerve growth factor [KO:K02582] |
| 3630 | INS | insulin [KO:K04526] |
| 3479 | IGF1 | insulin like growth factor 1 [KO:K05459] |
| 5154 | PDGFA | platelet derived growth factor subunit A [KO:K04359] |
| 5155 | PDGFB | platelet derived growth factor subunit B [KO:K17386] |
| 56034 | PDGFC | platelet derived growth factor C [KO:K05450] |
| 80310 | PDGFD | platelet derived growth factor D [KO:K05450] |
| 1435 | CSF1 | colony stimulating factor 1 [KO:K05453] |
| 4254 | KITLG | KIT ligand [KO:K05461] |
| 7422 | VEGFA | vascular endothelial growth factor A [KO:K05448] |
| 7423 | VEGFB | vascular endothelial growth factor B [KO:K16858] |
| 5228 | PGF | placental growth factor [KO:K16859] |
| 7424 | VEGFC | vascular endothelial growth factor C [KO:K05449] |
| 2277 | VEGFD | vascular endothelial growth factor D [KO:K05449] |
| 3082 | HGF | hepatocyte growth factor [KO:K05460] |
| 284 | ANGPT1 | angiopoietin 1 [KO:K05465] |
| 285 | ANGPT2 | angiopoietin 2 [KO:K05466] |
| 51378 | ANGPT4 | angiopoietin 4 [KO:K05467] |
| 1942 | EFNA1 | ephrin A1 [KO:K05462] |
| 1943 | EFNA2 | ephrin A2 [KO:K05462] |
| 1944 | EFNA3 | ephrin A3 [KO:K05462] |
| 1945 | EFNA4 | ephrin A4 [KO:K05462] |
| 1946 | EFNA5 | ephrin A5 [KO:K05462] |
| 1956 | EGFR | epidermal growth factor receptor [KO:K04361] [EC:2.7.10.1] |
| 2260 | FGFR1 | fibroblast growth factor receptor 1 [KO:K04362] [EC:2.7.10.1] |
| 2263 | FGFR2 | fibroblast growth factor receptor 2 [KO:K05093] [EC:2.7.10.1] |
| 2261 | FGFR3 | fibroblast growth factor receptor 3 [KO:K05094] [EC:2.7.10.1] |
| 2264 | FGFR4 | fibroblast growth factor receptor 4 [KO:K05095] [EC:2.7.10.1] |
| 4804 | NGFR | nerve growth factor receptor [KO:K02583] |
| 3643 | INSR | insulin receptor [KO:K04527] [EC:2.7.10.1] |
| 3480 | IGF1R | insulin like growth factor 1 receptor [KO:K05087] [EC:2.7.10.1] |
| 5156 | PDGFRA | platelet derived growth factor receptor alpha [KO:K04363] [EC:2.7.10.1] |
| 5159 | PDGFRB | platelet derived growth factor receptor beta [KO:K05089] [EC:2.7.10.1] |
| 1436 | CSF1R | colony stimulating factor 1 receptor [KO:K05090] [EC:2.7.10.1] |
| 3815 | KIT | KIT proto-oncogene receptor tyrosine kinase [KO:K05091] [EC:2.7.10.1] |
| 2321 | FLT1 | fms related tyrosine kinase 1 [KO:K05096] [EC:2.7.10.1] |
| 2324 | FLT4 | fms related tyrosine kinase 4 [KO:K05097] [EC:2.7.10.1] |
| 3791 | KDR | kinase insert domain receptor [KO:K05098] [EC:2.7.10.1] |
| 4233 | MET | MET proto-oncogene, receptor tyrosine kinase [KO:K05099] [EC:2.7.10.1] |
| 7010 | TEK | TEK receptor tyrosine kinase [KO:K05121] [EC:2.7.10.1] |
| 1969 | EPHA2 | EPH receptor A2 [KO:K05103] [EC:2.7.10.1] |
| 2885 | GRB2 | growth factor receptor bound protein 2 [KO:K04364] |
| 6654 | SOS1 | SOS Ras/Rac guanine nucleotide exchange factor 1 [KO:K03099] |
| 6655 | SOS2 | SOS Ras/Rho guanine nucleotide exchange factor 2 [KO:K03099] |
| 3265 | HRAS | HRas proto-oncogene, GTPase [KO:K02833] |
| 3845 | KRAS | KRAS proto-oncogene, GTPase [KO:K07827] |
| 4893 | NRAS | NRAS proto-oncogene, GTPase [KO:K07828] |
| 5894 | RAF1 | Raf-1 proto-oncogene, serine/threonine kinase [KO:K04366] [EC:2.7.11.1] |
| 5604 | MAP2K1 | mitogen-activated protein kinase kinase 1 [KO:K04368] [EC:2.7.12.2] |
| 5605 | MAP2K2 | mitogen-activated protein kinase kinase 2 [KO:K04369] [EC:2.7.12.2] |
| 5594 | MAPK1 | mitogen-activated protein kinase 1 [KO:K04371] [EC:2.7.11.24] |
| 5595 | MAPK3 | mitogen-activated protein kinase 3 [KO:K04371] [EC:2.7.11.24] |
| 3667 | IRS1 | insulin receptor substrate 1 [KO:K16172] |
| 7097 | TLR2 | toll like receptor 2 [KO:K10159] |
| 7099 | TLR4 | toll like receptor 4 [KO:K10160] |
| 5879 | RAC1 | ras-related C3 botulinum toxin substrate 1 (rho family, small GTP binding protein Rac1) [KO:K04392] |
| 1.03E+08 | IGH | putative V-set and immunoglobulin domain-containing-like protein IGHV4OR15-8 [KO:K06856] |
| 6850 | SYK | spleen associated tyrosine kinase [KO:K05855] [EC:2.7.10.2] |
| 930 | CD19 | CD19 molecule [KO:K06465] |
| 118788 | PIK3AP1 | phosphoinositide-3-kinase adaptor protein 1 [KO:K12230] |
| 2688 | GH1 | growth hormone 1 [KO:K05438] |
| 2689 | GH2 | growth hormone 2 [KO:K05438] |
| 1442 | CSH1 | chorionic somatomammotropin hormone 1 [KO:K05438] |
| 1443 | CSH2 | chorionic somatomammotropin hormone 2 [KO:K05438] |
| 5617 | PRL | prolactin [KO:K05439] |
| 5008 | OSM | oncostatin M [KO:K05418] |
| 3558 | IL2 | interleukin 2 [KO:K05429] |
| 3562 | IL3 | interleukin 3 [KO:K04736] |
| 3569 | IL6 | interleukin 6 [KO:K05405] |
| 3565 | IL4 | interleukin 4 [KO:K05430] |
| 3574 | IL7 | interleukin 7 [KO:K05431] |
| 3439 | IFNA1 | interferon alpha 1 [KO:K05414] |
| 3440 | IFNA2 | interferon alpha 2 [KO:K05414] |
| 3441 | IFNA4 | interferon alpha 4 [KO:K05414] |
| 3442 | IFNA5 | interferon alpha 5 [KO:K05414] |
| 3443 | IFNA6 | interferon alpha 6 [KO:K05414] |
| 3444 | IFNA7 | interferon alpha 7 [KO:K05414] |
| 3445 | IFNA8 | interferon alpha 8 [KO:K05414] |
| 3446 | IFNA10 | interferon alpha 10 [KO:K05414] |
| 3447 | IFNA13 | interferon alpha 13 [KO:K05414] |
| 3448 | IFNA14 | interferon alpha 14 [KO:K05414] |
| 3449 | IFNA16 | interferon alpha 16 [KO:K05414] |
| 3451 | IFNA17 | interferon alpha 17 [KO:K05414] |
| 3452 | IFNA21 | interferon alpha 21 [KO:K05414] |
| 3456 | IFNB1 | interferon beta 1 [KO:K05415] |
| 2056 | EPO | erythropoietin [KO:K05437] |
| 1440 | CSF3 | colony stimulating factor 3 [KO:K05423] |
| 2690 | GHR | growth hormone receptor [KO:K05080] |
| 5618 | PRLR | prolactin receptor [KO:K05081] |
| 9180 | OSMR | oncostatin M receptor [KO:K05057] |
| 3559 | IL2RA | interleukin 2 receptor subunit alpha [KO:K05068] |
| 3560 | IL2RB | interleukin 2 receptor subunit beta [KO:K05069] |
| 3561 | IL2RG | interleukin 2 receptor subunit gamma [KO:K05070] |
| 3563 | IL3RA | interleukin 3 receptor subunit alpha [KO:K04737] |
| 3570 | IL6R | interleukin 6 receptor [KO:K05055] |
| 3566 | IL4R | interleukin 4 receptor [KO:K05071] |
| 3575 | IL7R | interleukin 7 receptor [KO:K05072] |
| 3454 | IFNAR1 | interferon alpha and beta receptor subunit 1 [KO:K05130] |
| 3455 | IFNAR2 | interferon alpha and beta receptor subunit 2 [KO:K05131] |
| 2057 | EPOR | erythropoietin receptor [KO:K05079] |
| 1441 | CSF3R | colony stimulating factor 3 receptor [KO:K05061] |
| 3716 | JAK1 | Janus kinase 1 [KO:K11217] [EC:2.7.10.2] |
| 3717 | JAK2 | Janus kinase 2 [KO:K04447] [EC:2.7.10.2] |
| 3718 | JAK3 | Janus kinase 3 [KO:K11218] [EC:2.7.10.2] |
| 1277 | COL1A1 | collagen type I alpha 1 chain [KO:K06236] |
| 1278 | COL1A2 | collagen type I alpha 2 chain [KO:K06236] |
| 1280 | COL2A1 | collagen type II alpha 1 chain [KO:K19719] |
| 1284 | COL4A2 | collagen type IV alpha 2 chain [KO:K06237] |
| 1286 | COL4A4 | collagen type IV alpha 4 chain [KO:K06237] |
| 1288 | COL4A6 | collagen type IV alpha 6 chain [KO:K06237] |
| 1282 | COL4A1 | collagen type IV alpha 1 chain [KO:K06237] |
| 1287 | COL4A5 | collagen type IV alpha 5 chain [KO:K06237] |
| 1285 | COL4A3 | collagen type IV alpha 3 chain [KO:K06237] |
| 1291 | COL6A1 | collagen type VI alpha 1 chain [KO:K06238] |
| 1292 | COL6A2 | collagen type VI alpha 2 chain [KO:K06238] |
| 1293 | COL6A3 | collagen type VI alpha 3 chain [KO:K06238] |
| 131873 | COL6A6 | collagen type VI alpha 6 chain [KO:K06238] |
| 256076 | COL6A5 | collagen type VI alpha 5 chain [KO:K06238] |
| 1297 | COL9A1 | collagen type IX alpha 1 chain [KO:K08131] |
| 1298 | COL9A2 | collagen type IX alpha 2 chain [KO:K08131] |
| 1299 | COL9A3 | collagen type IX alpha 3 chain [KO:K08131] |
| 284217 | LAMA1 | laminin subunit alpha 1 [KO:K05637] |
| 3908 | LAMA2 | laminin subunit alpha 2 [KO:K05637] |
| 3909 | LAMA3 | laminin subunit alpha 3 [KO:K06240] |
| 3911 | LAMA5 | laminin subunit alpha 5 [KO:K06240] |
| 3910 | LAMA4 | laminin subunit alpha 4 [KO:K06241] |
| 3912 | LAMB1 | laminin subunit beta 1 [KO:K05636] |
| 3913 | LAMB2 | laminin subunit beta 2 [KO:K06243] |
| 3914 | LAMB3 | laminin subunit beta 3 [KO:K06244] |
| 22798 | LAMB4 | laminin subunit beta 4 [KO:K06245] |
| 3915 | LAMC1 | laminin subunit gamma 1 [KO:K05635] |
| 3918 | LAMC2 | laminin subunit gamma 2 [KO:K06246] |
| 10319 | LAMC3 | laminin subunit gamma 3 [KO:K06247] |
| 1101 | CHAD | chondroadherin [KO:K06248] |
| 5649 | RELN | reelin [KO:K06249] [EC:3.4.21.-] |
| 7057 | THBS1 | thrombospondin 1 [KO:K16857] |
| 1311 | COMP | cartilage oligomeric matrix protein [KO:K04659] |
| 7058 | THBS2 | thrombospondin 2 [KO:K04659] |
| 7059 | THBS3 | thrombospondin 3 [KO:K04659] |
| 7060 | THBS4 | thrombospondin 4 [KO:K04659] |
| 2335 | FN1 | fibronectin 1 [KO:K05717] |
| 6696 | SPP1 | secreted phosphoprotein 1 [KO:K06250] |
| 7448 | VTN | vitronectin [KO:K06251] |
| 3371 | TNC | tenascin C [KO:K06252] |
| 63923 | TNN | tenascin N [KO:K06252] |
| 7143 | TNR | tenascin R [KO:K06252] |
| 7148 | TNXB | tenascin XB [KO:K06252] |
| 7450 | VWF | von Willebrand factor [KO:K03900] |
| 3381 | IBSP | integrin binding sialoprotein [KO:K06253] |
| 3672 | ITGA1 | integrin subunit alpha 1 [KO:K06480] |
| 3673 | ITGA2 | integrin subunit alpha 2 [KO:K06481] |
| 3674 | ITGA2B | integrin subunit alpha 2b [KO:K06476] |
| 3675 | ITGA3 | integrin subunit alpha 3 [KO:K06482] |
| 3676 | ITGA4 | integrin subunit alpha 4 [KO:K06483] |
| 3678 | ITGA5 | integrin subunit alpha 5 [KO:K06484] |
| 3655 | ITGA6 | integrin subunit alpha 6 [KO:K06485] |
| 3679 | ITGA7 | integrin subunit alpha 7 [KO:K06583] |
| 8516 | ITGA8 | integrin subunit alpha 8 [KO:K06584] |
| 3680 | ITGA9 | integrin subunit alpha 9 [KO:K06585] |
| 8515 | ITGA10 | integrin subunit alpha 10 [KO:K06586] |
| 22801 | ITGA11 | integrin subunit alpha 11 [KO:K06587] |
| 3685 | ITGAV | integrin subunit alpha V [KO:K06487] |
| 3688 | ITGB1 | integrin subunit beta 1 [KO:K05719] |
| 3690 | ITGB3 | integrin subunit beta 3 [KO:K06493] |
| 3691 | ITGB4 | integrin subunit beta 4 [KO:K06525] |
| 3693 | ITGB5 | integrin subunit beta 5 [KO:K06588] |
| 3694 | ITGB6 | integrin subunit beta 6 [KO:K06589] |
| 3695 | ITGB7 | integrin subunit beta 7 [KO:K06590] |
| 3696 | ITGB8 | integrin subunit beta 8 [KO:K06591] |
| 5747 | PTK2 | protein tyrosine kinase 2 [KO:K05725] [EC:2.7.10.2] |
| 5290 | PIK3CA | phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha [KO:K00922] [EC:2.7.1.153] |
| 5293 | PIK3CD | phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit delta [KO:K00922] [EC:2.7.1.153] |
| 5291 | PIK3CB | phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta [KO:K00922] [EC:2.7.1.153] |
| 5295 | PIK3R1 | phosphoinositide-3-kinase regulatory subunit 1 [KO:K02649] |
| 5296 | PIK3R2 | phosphoinositide-3-kinase regulatory subunit 2 [KO:K02649] |
| 8503 | PIK3R3 | phosphoinositide-3-kinase regulatory subunit 3 [KO:K02649] |
| 2149 | F2R | coagulation factor II thrombin receptor [KO:K03914] |
| 1128 | CHRM1 | cholinergic receptor muscarinic 1 [KO:K04129] |
| 1129 | CHRM2 | cholinergic receptor muscarinic 2 [KO:K04130] |
| 1902 | LPAR1 | lysophosphatidic acid receptor 1 [KO:K04289] |
| 9170 | LPAR2 | lysophosphatidic acid receptor 2 [KO:K04291] |
| 23566 | LPAR3 | lysophosphatidic acid receptor 3 [KO:K04294] |
| 2846 | LPAR4 | lysophosphatidic acid receptor 4 [KO:K04275] |
| 57121 | LPAR5 | lysophosphatidic acid receptor 5 [KO:K08390] |
| 10161 | LPAR6 | lysophosphatidic acid receptor 6 [KO:K04273] |
| 2782 | GNB1 | G protein subunit beta 1 [KO:K04536] |
| 2783 | GNB2 | G protein subunit beta 2 [KO:K04537] |
| 2784 | GNB3 | G protein subunit beta 3 [KO:K07825] |
| 59345 | GNB4 | G protein subunit beta 4 [KO:K04538] |
| 10681 | GNB5 | G protein subunit beta 5 [KO:K04539] |
| 54331 | GNG2 | G protein subunit gamma 2 [KO:K07826] |
| 2785 | GNG3 | G protein subunit gamma 3 [KO:K04540] |
| 2786 | GNG4 | G protein subunit gamma 4 [KO:K04541] |
| 2787 | GNG5 | G protein subunit gamma 5 [KO:K04542] |
| 2788 | GNG7 | G protein subunit gamma 7 [KO:K04543] |
| 94235 | GNG8 | G protein subunit gamma 8 [KO:K04544] |
| 2790 | GNG10 | G protein subunit gamma 10 [KO:K04545] |
| 2791 | GNG11 | G protein subunit gamma 11 [KO:K04546] |
| 55970 | GNG12 | G protein subunit gamma 12 [KO:K04347] |
| 51764 | GNG13 | G protein subunit gamma 13 [KO:K04547] |
| 2792 | GNGT1 | G protein subunit gamma transducin 1 [KO:K04548] |
| 2793 | GNGT2 | G protein subunit gamma transducin 2 [KO:K04549] |
| 5294 | PIK3CG | phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma [KO:K21289] [EC:2.7.1.153] |
| 23533 | PIK3R5 | phosphoinositide-3-kinase regulatory subunit 5 [KO:K21290] |
| 146850 | PIK3R6 | phosphoinositide-3-kinase regulatory subunit 6 [KO:K21290] |
| 5170 | PDPK1 | 3-phosphoinositide dependent protein kinase 1 [KO:K06276] [EC:2.7.11.1] |
| 6794 | STK11 | serine/threonine kinase 11 [KO:K07298] [EC:2.7.11.1] |
| 5562 | PRKAA1 | protein kinase AMP-activated catalytic subunit alpha 1 [KO:K07198] [EC:2.7.11.11] |
| 5563 | PRKAA2 | protein kinase AMP-activated catalytic subunit alpha 2 [KO:K07198] [EC:2.7.11.11] |
| 54541 | DDIT4 | DNA damage inducible transcript 4 [KO:K08270] |
| 7248 | TSC1 | tuberous sclerosis 1 [KO:K07206] |
| 7249 | TSC2 | tuberous sclerosis 2 [KO:K07207] |
| 6009 | RHEB | Ras homolog enriched in brain [KO:K07208] |
| 64223 | MLST8 | MTOR associated protein, LST8 homolog [KO:K08266] |
| 2475 | MTOR | mechanistic target of rapamycin [KO:K07203] [EC:2.7.11.1] |
| 57521 | RPTOR | regulatory associated protein of MTOR complex 1 [KO:K07204] |
| 1978 | EIF4EBP1 | eukaryotic translation initiation factor 4E binding protein 1 [KO:K07205] |
| 1977 | EIF4E | eukaryotic translation initiation factor 4E [KO:K03259] |
| 9470 | EIF4E2 | eukaryotic translation initiation factor 4E family member 2 [KO:K03259] |
| 253314 | EIF4E1B | eukaryotic translation initiation factor 4E family member 1B [KO:K03259] |
| 6198 | RPS6KB1 | ribosomal protein S6 kinase B1 [KO:K04688] [EC:2.7.11.1] |
| 6199 | RPS6KB2 | ribosomal protein S6 kinase B2 [KO:K04688] [EC:2.7.11.1] |
| 1975 | EIF4B | eukaryotic translation initiation factor 4B [KO:K03258] |
| 6194 | RPS6 | ribosomal protein S6 [KO:K02991] |
| 5578 | PRKCA | protein kinase C alpha [KO:K02677] [EC:2.7.11.13] |
| 5585 | PKN1 | protein kinase N1 [KO:K06071] [EC:2.7.11.13] |
| 29941 | PKN3 | protein kinase N3 [KO:K06071] [EC:2.7.11.13] |
| 5586 | PKN2 | protein kinase N2 [KO:K06071] [EC:2.7.11.13] |
| 6446 | SGK1 | serum/glucocorticoid regulated kinase 1 [KO:K13302] [EC:2.7.11.1] |
| 10110 | SGK2 | SGK2, serine/threonine kinase 2 [KO:K13303] [EC:2.7.11.1] |
| 23678 | SGK3 | serum/glucocorticoid regulated kinase family member 3 [KO:K13304] [EC:2.7.11.1] |
| 1.01E+08 | C8orf44-SGK3 | C8orf44-SGK3 readthrough [KO:K13304] [EC:2.7.11.1] |
| 207 | AKT1 | AKT serine/threonine kinase 1 [KO:K04456] [EC:2.7.11.1] |
| 208 | AKT2 | AKT serine/threonine kinase 2 [KO:K04456] [EC:2.7.11.1] |
| 10000 | AKT3 | AKT serine/threonine kinase 3 [KO:K04456] [EC:2.7.11.1] |
| 5728 | PTEN | phosphatase and tensin homolog [KO:K01110] [EC:3.1.3.67 3.1.3.48 3.1.3.16] |
| 117145 | THEM4 | thioesterase superfamily member 4 [KO:K16339] |
| 5515 | PPP2CA | protein phosphatase 2 catalytic subunit alpha [KO:K04382] [EC:3.1.3.16] |
| 5516 | PPP2CB | protein phosphatase 2 catalytic subunit beta [KO:K04382] [EC:3.1.3.16] |
| 5519 | PPP2R1B | protein phosphatase 2 scaffold subunit Abeta [KO:K03456] |
| 5518 | PPP2R1A | protein phosphatase 2 scaffold subunit Aalpha [KO:K03456] |
| 5520 | PPP2R2A | protein phosphatase 2 regulatory subunit Balpha [KO:K04354] |
| 5521 | PPP2R2B | protein phosphatase 2 regulatory subunit Bbeta [KO:K04354] |
| 5522 | PPP2R2C | protein phosphatase 2 regulatory subunit Bgamma [KO:K04354] |
| 55844 | PPP2R2D | protein phosphatase 2 regulatory subunit Bdelta [KO:K04354] |
| 28227 | PPP2R3B | protein phosphatase 2 regulatory subunit B''beta [KO:K11583] |
| 55012 | PPP2R3C | protein phosphatase 2 regulatory subunit B''gamma [KO:K11583] |
| 5523 | PPP2R3A | protein phosphatase 2 regulatory subunit B''alpha [KO:K11583] |
| 5526 | PPP2R5B | protein phosphatase 2 regulatory subunit B'beta [KO:K11584] |
| 5527 | PPP2R5C | protein phosphatase 2 regulatory subunit B'gamma [KO:K11584] |
| 5528 | PPP2R5D | protein phosphatase 2 regulatory subunit B'delta [KO:K11584] |
| 5529 | PPP2R5E | protein phosphatase 2 regulatory subunit B'epsilon [KO:K11584] |
| 5525 | PPP2R5A | protein phosphatase 2 regulatory subunit B'alpha [KO:K11584] |
| 3320 | HSP90AA1 | heat shock protein 90 alpha family class A member 1 [KO:K04079] |
| 3326 | HSP90AB1 | heat shock protein 90 alpha family class B member 1 [KO:K04079] |
| 7184 | HSP90B1 | heat shock protein 90 beta family member 1 [KO:K09487] |
| 11140 | CDC37 | cell division cycle 37 [KO:K09554] |
| 200186 | CRTC2 | CREB regulated transcription coactivator 2 [KO:K16333] |
| 23239 | PHLPP1 | PH domain and leucine rich repeat protein phosphatase 1 [KO:K16340] [EC:3.1.3.16] |
| 23035 | PHLPP2 | PH domain and leucine rich repeat protein phosphatase 2 [KO:K16340] [EC:3.1.3.16] |
| 8115 | TCL1A | T-cell leukemia/lymphoma 1A [KO:K10167] |
| 9623 | TCL1B | T-cell leukemia/lymphoma 1B [KO:K16836] |
| 4515 | MTCP1 | mature T-cell proliferation 1 [KO:K16837] |
| 4846 | NOS3 | nitric oxide synthase 3 [KO:K13242] [EC:1.14.13.39] |
| 672 | BRCA1 | BRCA1, DNA repair associated [KO:K10605] [EC:2.3.2.27] |
| 2932 | GSK3B | glycogen synthase kinase 3 beta [KO:K03083] [EC:2.7.11.26] |
| 2998 | GYS2 | glycogen synthase 2 [KO:K00693] [EC:2.4.1.11] |
| 2997 | GYS1 | glycogen synthase 1 [KO:K00693] [EC:2.4.1.11] |
| 5105 | PCK1 | phosphoenolpyruvate carboxykinase 1 [KO:K01596] [EC:4.1.1.32] |
| 5106 | PCK2 | phosphoenolpyruvate carboxykinase 2, mitochondrial [KO:K01596] [EC:4.1.1.32] |
| 2538 | G6PC | glucose-6-phosphatase catalytic subunit [KO:K01084] [EC:3.1.3.9] |
| 57818 | G6PC2 | glucose-6-phosphatase catalytic subunit 2 [KO:K01084] [EC:3.1.3.9] |
| 92579 | G6PC3 | glucose-6-phosphatase catalytic subunit 3 [KO:K01084] [EC:3.1.3.9] |
| 4609 | MYC | MYC proto-oncogene, bHLH transcription factor [KO:K04377] |
| 595 | CCND1 | cyclin D1 [KO:K04503] |
| 1026 | CDKN1A | cyclin dependent kinase inhibitor 1A [KO:K06625] |
| 1027 | CDKN1B | cyclin dependent kinase inhibitor 1B [KO:K06624] |
| 1017 | CDK2 | cyclin dependent kinase 2 [KO:K02206] [EC:2.7.11.22] |
| 1019 | CDK4 | cyclin dependent kinase 4 [KO:K02089] [EC:2.7.11.22] |
| 1021 | CDK6 | cyclin dependent kinase 6 [KO:K02091] [EC:2.7.11.22] |
| 894 | CCND2 | cyclin D2 [KO:K10151] |
| 896 | CCND3 | cyclin D3 [KO:K10152] |
| 898 | CCNE1 | cyclin E1 [KO:K06626] |
| 9134 | CCNE2 | cyclin E2 [KO:K06626] |
| 2309 | FOXO3 | forkhead box O3 [KO:K09408] |
| 5934 | RBL2 | RB transcriptional corepressor like 2 [KO:K16332] |
| 356 | FASLG | Fas ligand [KO:K04389] |
| 10018 | BCL2L11 | BCL2 like 11 [KO:K16341] |
| 7534 | YWHAZ | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein zeta [KO:K16197] |
| 7529 | YWHAB | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein beta [KO:K16197] |
| 10971 | YWHAQ | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein theta [KO:K16197] |
| 7531 | YWHAE | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein epsilon [KO:K06630] |
| 7533 | YWHAH | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein eta [KO:K16198] |
| 7532 | YWHAG | tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein gamma [KO:K16198] |
| 572 | BAD | BCL2 associated agonist of cell death [KO:K02158] |
| 598 | BCL2L1 | BCL2 like 1 [KO:K04570] |
| 596 | BCL2 | BCL2, apoptosis regulator [KO:K02161] |
| 842 | CASP9 | caspase 9 [KO:K04399] [EC:3.4.22.62] |
| 1385 | CREB1 | cAMP responsive element binding protein 1 [KO:K05870] |
| 1386 | ATF2 | activating transcription factor 2 [KO:K04450] |
| 468 | ATF4 | activating transcription factor 4 [KO:K04374] |
| 10488 | CREB3 | cAMP responsive element binding protein 3 [KO:K09048] |
| 90993 | CREB3L1 | cAMP responsive element binding protein 3 like 1 [KO:K09048] |
| 64764 | CREB3L2 | cAMP responsive element binding protein 3 like 2 [KO:K09048] |
| 84699 | CREB3L3 | cAMP responsive element binding protein 3 like 3 [KO:K09048] |
| 148327 | CREB3L4 | cAMP responsive element binding protein 3 like 4 [KO:K09048] |
| 9586 | CREB5 | cAMP responsive element binding protein 5 [KO:K09047] |
| 1388 | ATF6B | activating transcription factor 6 beta [KO:K09049] |
| 4170 | MCL1 | MCL1, BCL2 family apoptosis regulator [KO:K02539] |
| 6256 | RXRA | retinoid X receptor alpha [KO:K08524] |
| 3164 | NR4A1 | nuclear receptor subfamily 4 group A member 1 [KO:K04465] |
| 8517 | IKBKG | inhibitor of nuclear factor kappa B kinase subunit gamma [KO:K07210] |
| 1147 | CHUK | conserved helix-loop-helix ubiquitous kinase [KO:K04467] [EC:2.7.11.10] |
| 3551 | IKBKB | inhibitor of nuclear factor kappa B kinase subunit beta [KO:K07209] [EC:2.7.11.10] |
| 5970 | RELA | RELA proto-oncogene, NF-kB subunit [KO:K04735] |
| 4790 | NFKB1 | nuclear factor kappa B subunit 1 [KO:K02580] |
| 4602 | MYB | MYB proto-oncogene, transcription factor [KO:K09420] |
| 4193 | MDM2 | MDM2 proto-oncogene [KO:K06643] [EC:2.3.2.27] |
| 7157 | TP53 | tumor protein p53 [KO:K04451] |

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| --- | --- | --- | --- | --- | --- |
| Supplemental Table 2. Differential Expression of all genes in PI3K/AKT Signaling Pathway | | | | | |
| *Gene* | Tumor Mean | Normal Mean | Fold Change | P-Value | Adjusted P-Value |
| *BAD* | 13.13 | 18.42 | 0.71 | 1.38E-11 | 3.42E-11 |
| *ITGA3* | 129.43 | 172.36 | 0.75 | 4.02E-12 | 1.03E-11 |
| *ITGA2B* | 0.54 | 0.86 | 0.62 | 9.90E-03 | 1.26E-02 |
| *BRCA1* | 87.46 | 35.35 | 2.47 | 2.77E-41 | 3.83E-40 |
| *IGF1* | 13.85 | 38.80 | 0.36 | 5.43E-28 | 3.59E-27 |
| *HGF* | 10.18 | 14.00 | 0.73 | 3.03E-04 | 4.62E-04 |
| *FLT4* | 12.44 | 14.18 | 0.88 | 8.29E-02 | 9.62E-02 |
| *PHLPP2* | 79.32 | 139.85 | 0.57 | 1.77E-28 | 1.22E-27 |
| *TNC* | 156.39 | 92.44 | 1.69 | 7.51E-11 | 1.73E-10 |
| *COL9A2* | 26.53 | 49.91 | 0.53 | 4.06E-12 | 1.03E-11 |
| *KITLG* | 42.13 | 62.42 | 0.67 | 9.38E-11 | 2.14E-10 |
| *LAMC3* | 4.06 | 9.43 | 0.43 | 2.41E-14 | 7.17E-14 |
| *PIK3CB* | 90.89 | 81.36 | 1.12 | 5.56E-04 | 8.09E-04 |
| *LAMA3* | 108.67 | 116.00 | 0.94 | 2.35E-01 | 2.61E-01 |
| *LAMC2* | 138.11 | 70.95 | 1.95 | 3.56E-24 | 1.67E-23 |
| *CREB3L3* | 0.69 | 2.76 | 0.25 | 1.88E-10 | 4.22E-10 |
| *EIF4B* | 299.92 | 192.20 | 1.56 | 1.47E-39 | 1.94E-38 |
| *NGFR* | 2.10 | 7.67 | 0.27 | 9.76E-26 | 5.30E-25 |
| *LPAR2* | 24.58 | 20.81 | 1.18 | 3.52E-04 | 5.32E-04 |
| *PKN2* | 126.57 | 132.28 | 0.96 | 1.39E-01 | 1.59E-01 |
| *PPP2R5A* | 83.67 | 76.61 | 1.09 | 2.25E-03 | 3.06E-03 |
| *FGFR2* | 26.51 | 68.82 | 0.39 | 2.32E-21 | 9.93E-21 |
| *FGFR3* | 36.15 | 70.78 | 0.51 | 1.13E-18 | 4.28E-18 |
| *PPP2R5B* | 21.92 | 27.20 | 0.81 | 6.37E-05 | 1.02E-04 |
| *GNB5* | 11.75 | 11.53 | 1.02 | 7.84E-01 | 7.87E-01 |
| *FGF10* | 1.70 | 4.06 | 0.42 | 1.85E-10 | 4.21E-10 |
| *IKBKG* | 6.91 | 6.20 | 1.11 | 2.04E-01 | 2.31E-01 |
| *PPP2R3A* | 28.10 | 62.55 | 0.45 | 3.67E-37 | 3.84E-36 |
| *PPP2R2C* | 3.79 | 2.57 | 1.48 | 1.38E-02 | 1.73E-02 |
| *IL4R* | 114.37 | 143.74 | 0.80 | 1.54E-14 | 4.64E-14 |
| *FGFR1* | 54.37 | 77.12 | 0.70 | 6.72E-11 | 1.56E-10 |
| *ITGA8* | 9.84 | 37.30 | 0.26 | 2.42E-46 | 4.09E-45 |
| *PPP2R5C* | 129.64 | 100.55 | 1.29 | 1.35E-11 | 3.37E-11 |
| *GNB1* | 294.98 | 256.32 | 1.15 | 1.58E-09 | 3.34E-09 |
| *FGF20* | 0.72 | 0.14 | 5.29 | 2.29E-05 | 3.83E-05 |
| *HSP90AA1* | 627.50 | 246.84 | 2.54 | 7.12E-59 | 4.33E-57 |
| *COL4A4* | 13.58 | 47.42 | 0.29 | 6.88E-33 | 5.98E-32 |
| *PHLPP1* | 42.56 | 65.01 | 0.65 | 1.03E-20 | 4.16E-20 |
| *GSK3B* | 169.34 | 139.86 | 1.21 | 9.49E-15 | 2.91E-14 |
| *ITGB5* | 110.37 | 68.02 | 1.62 | 4.02E-23 | 1.77E-22 |
| *LAMB4* | 0.79 | 1.47 | 0.54 | 2.64E-04 | 4.05E-04 |
| *LAMB1* | 323.38 | 285.47 | 1.13 | 4.89E-04 | 7.21E-04 |
| *ITGA6* | 606.87 | 418.08 | 1.45 | 7.35E-21 | 3.06E-20 |
| *ANGPT2* | 29.27 | 33.60 | 0.87 | 2.83E-03 | 3.80E-03 |
| *PPP2R3C* | 17.02 | 17.78 | 0.96 | 4.83E-01 | 5.06E-01 |
| *COL9A3* | 17.74 | 7.51 | 2.36 | 1.74E-12 | 4.68E-12 |
| *HSP90AB1* | 593.22 | 213.90 | 2.77 | 6.27E-75 | 1.91E-72 |
| *JAK2* | 46.91 | 57.44 | 0.82 | 5.08E-06 | 8.82E-06 |
| *EFNA2* | 5.04 | 8.00 | 0.63 | 1.35E-06 | 2.42E-06 |
| *OSM* | 6.68 | 2.31 | 2.90 | 4.35E-16 | 1.44E-15 |
| *MAPK1* | 183.50 | 179.79 | 1.02 | 3.53E-01 | 3.79E-01 |
| *PDGFB* | 17.40 | 13.37 | 1.30 | 7.15E-05 | 1.13E-04 |
| *IL2RB* | 17.40 | 20.32 | 0.86 | 3.37E-02 | 4.04E-02 |
| *SOS2* | 91.40 | 127.77 | 0.72 | 2.38E-20 | 9.51E-20 |
| *TCL1A* | 0.19 | 3.21 | 0.06 | 1.46E-18 | 5.40E-18 |
| *PCK2* | 44.25 | 52.60 | 0.84 | 4.76E-05 | 7.66E-05 |
| *SGK2* | 42.18 | 65.06 | 0.65 | 1.12E-09 | 2.42E-09 |
| *ANGPT4* | 0.29 | 0.42 | 0.70 | 1.86E-01 | 2.11E-01 |
| *LAMA1* | 5.47 | 7.61 | 0.72 | 1.01E-03 | 1.44E-03 |
| *FGF14* | 0.56 | 0.48 | 1.15 | 5.48E-01 | 5.73E-01 |
| *FGF9* | 1.66 | 9.08 | 0.18 | 4.27E-30 | 3.17E-29 |
| *FLT1* | 29.83 | 26.71 | 1.12 | 4.76E-02 | 5.63E-02 |
| *MAPK3* | 62.34 | 92.73 | 0.67 | 9.12E-19 | 3.51E-18 |
| *TSC2* | 149.20 | 153.46 | 0.97 | 2.55E-01 | 2.79E-01 |
| *RBL2* | 164.68 | 170.61 | 0.97 | 2.38E-01 | 2.64E-01 |
| *SGK3* | 35.66 | 47.78 | 0.75 | 2.54E-10 | 5.68E-10 |
| *IKBKB* | 137.36 | 145.80 | 0.94 | 6.63E-02 | 7.72E-02 |
| *IL7* | 15.39 | 15.71 | 0.98 | 7.41E-01 | 7.46E-01 |
| *PPP2CB* | 55.72 | 65.30 | 0.85 | 4.75E-05 | 7.66E-05 |
| *GYS1* | 59.07 | 61.68 | 0.96 | 1.43E-01 | 1.63E-01 |
| *CCNE1* | 8.70 | 4.80 | 1.81 | 2.93E-10 | 6.49E-10 |
| *AKT2* | 156.81 | 135.87 | 1.15 | 2.66E-07 | 4.88E-07 |
| *CDC37* | 87.60 | 77.29 | 1.13 | 1.08E-04 | 1.69E-04 |
| *PPP2R1A* | 142.03 | 127.10 | 1.12 | 5.98E-06 | 1.03E-05 |
| *JAK3* | 47.72 | 66.78 | 0.71 | 2.00E-08 | 3.93E-08 |
| *PIK3R2* | 72.83 | 54.55 | 1.34 | 1.32E-18 | 4.94E-18 |
| *COMP* | 9.53 | 1.45 | 6.57 | 8.75E-20 | 3.41E-19 |
| *CDK6* | 289.15 | 166.12 | 1.74 | 1.71E-35 | 1.63E-34 |
| *PIK3CG* | 13.99 | 35.04 | 0.40 | 4.52E-28 | 3.06E-27 |
| *ITGB8* | 74.17 | 47.90 | 1.55 | 1.88E-15 | 6.02E-15 |
| *MET* | 302.60 | 84.88 | 3.56 | 1.25E-68 | 1.89E-66 |
| *RHEB* | 46.51 | 26.01 | 1.79 | 1.22E-30 | 9.79E-30 |
| *CREB3* | 32.08 | 36.37 | 0.88 | 1.69E-03 | 2.35E-03 |
| *CSF3* | 1.03 | 1.66 | 0.62 | 8.63E-03 | 1.10E-02 |
| *RPS6KB1* | 49.77 | 41.07 | 1.21 | 2.03E-07 | 3.74E-07 |
| *COL1A1* | 3190.86 | 754.73 | 4.23 | 1.19E-54 | 3.61E-53 |
| *YWHAE* | 214.66 | 141.14 | 1.52 | 8.22E-28 | 5.10E-27 |
| *NFKB1* | 77.63 | 83.98 | 0.92 | 7.65E-03 | 9.81E-03 |
| *CCND1* | 317.79 | 122.64 | 2.59 | 1.53E-59 | 1.16E-57 |
| *VWF* | 80.70 | 106.14 | 0.76 | 5.26E-09 | 1.08E-08 |
| *CDKN1B* | 61.72 | 47.11 | 1.31 | 2.89E-12 | 7.71E-12 |
| *GNB3* | 7.37 | 6.83 | 1.08 | 3.77E-01 | 4.02E-01 |
| *GYS2* | 0.23 | 0.58 | 0.40 | 5.32E-04 | 7.82E-04 |
| *COL9A1* | 10.41 | 4.59 | 2.27 | 3.34E-09 | 6.90E-09 |
| *CCND3* | 33.57 | 40.72 | 0.82 | 1.67E-06 | 2.95E-06 |
| *PPP2R5D* | 64.76 | 50.52 | 1.28 | 7.51E-13 | 2.06E-12 |
| *VEGFA* | 532.25 | 316.77 | 1.68 | 5.74E-32 | 4.71E-31 |
| *LAMA4* | 147.59 | 157.15 | 0.94 | 1.34E-01 | 1.54E-01 |
| *GHR* | 6.68 | 20.21 | 0.33 | 3.79E-30 | 2.88E-29 |
| *THBS4* | 13.81 | 11.27 | 1.23 | 2.47E-02 | 3.02E-02 |
| *PRLR* | 100.62 | 93.37 | 1.08 | 2.16E-01 | 2.43E-01 |
| *PPP2CA* | 101.95 | 90.28 | 1.13 | 1.14E-04 | 1.78E-04 |
| *FGF1* | 4.77 | 2.79 | 1.71 | 9.30E-06 | 1.59E-05 |
| *PDGFRB* | 166.24 | 87.76 | 1.89 | 8.03E-28 | 5.10E-27 |
| *FGF12* | 1.01 | 1.32 | 0.76 | 1.36E-01 | 1.56E-01 |
| *GNB4* | 26.89 | 28.07 | 0.96 | 3.89E-01 | 4.14E-01 |
| *ITGB6* | 38.65 | 36.71 | 1.05 | 3.57E-01 | 3.82E-01 |
| *ITGA4* | 36.27 | 71.10 | 0.51 | 1.71E-25 | 8.99E-25 |
| *FN1* | 1461.37 | 554.51 | 2.64 | 8.52E-34 | 7.62E-33 |
| *SOS1* | 159.37 | 164.61 | 0.97 | 2.24E-01 | 2.51E-01 |
| *ATF2* | 69.51 | 64.16 | 1.08 | 1.05E-02 | 1.33E-02 |
| *TNR* | 0.53 | 1.75 | 0.30 | 4.45E-11 | 1.06E-10 |
| *AKT3* | 41.45 | 52.56 | 0.79 | 2.51E-05 | 4.17E-05 |
| *PIK3R3* | 35.88 | 33.87 | 1.06 | 2.55E-01 | 2.79E-01 |
| *FASLG* | 1.07 | 1.70 | 0.63 | 4.96E-03 | 6.48E-03 |
| *STK11* | 65.02 | 60.56 | 1.07 | 2.99E-02 | 3.62E-02 |
| *CREB1* | 117.64 | 108.60 | 1.08 | 4.40E-03 | 5.79E-03 |
| *MYB* | 126.87 | 98.93 | 1.28 | 7.91E-09 | 1.61E-08 |
| *SGK1* | 50.97 | 137.98 | 0.37 | 4.36E-38 | 5.10E-37 |
| *FOXO3* | 134.29 | 120.96 | 1.11 | 3.38E-03 | 4.51E-03 |
| *SPP1* | 38.03 | 3.28 | 11.60 | 5.67E-42 | 8.21E-41 |
| *CCND2* | 773.45 | 483.06 | 1.60 | 3.23E-16 | 1.08E-15 |
| *FGF23* | 0.45 | 0.55 | 0.82 | 4.40E-01 | 4.63E-01 |
| *CSF3R* | 25.53 | 24.64 | 1.04 | 6.19E-01 | 6.40E-01 |
| *PGF* | 6.51 | 4.48 | 1.45 | 3.11E-04 | 4.72E-04 |
| *TEK* | 8.92 | 15.47 | 0.58 | 5.93E-12 | 1.49E-11 |
| *TNN* | 0.96 | 1.43 | 0.67 | 3.02E-02 | 3.64E-02 |
| *PIK3CA* | 67.11 | 55.23 | 1.22 | 6.77E-07 | 1.22E-06 |
| *PKN1* | 55.29 | 37.75 | 1.46 | 3.22E-15 | 1.01E-14 |
| *NR4A1* | 201.17 | 319.66 | 0.63 | 5.51E-11 | 1.31E-10 |
| *CDK2* | 45.70 | 24.96 | 1.83 | 8.37E-33 | 7.07E-32 |
| *PCK1* | 42.44 | 305.32 | 0.14 | 1.11E-46 | 1.98E-45 |
| *CDKN1A* | 84.50 | 98.10 | 0.86 | 3.83E-03 | 5.07E-03 |
| *MAP2K2* | 69.97 | 75.76 | 0.92 | 1.47E-02 | 1.84E-02 |
| *GNG13* | 1.54 | 1.14 | 1.35 | 2.21E-02 | 2.74E-02 |
| *GNG11* | 3.49 | 4.79 | 0.73 | 1.43E-03 | 2.00E-03 |
| *GNGT1* | 0.48 | 0.91 | 0.53 | 2.33E-03 | 3.15E-03 |
| *KDR* | 20.45 | 18.97 | 1.08 | 2.64E-01 | 2.88E-01 |
| *YWHAH* | 102.59 | 66.00 | 1.55 | 1.54E-25 | 8.22E-25 |
| *ATF4* | 130.84 | 105.67 | 1.24 | 8.92E-13 | 2.42E-12 |
| *FGF13* | 2.42 | 4.18 | 0.58 | 2.84E-05 | 4.69E-05 |
| *LAMA5* | 242.34 | 155.24 | 1.56 | 3.52E-14 | 1.03E-13 |
| *G6PC* | 0.25 | 0.74 | 0.34 | 8.92E-04 | 1.27E-03 |
| *RAF1* | 131.53 | 147.29 | 0.89 | 5.78E-07 | 1.05E-06 |
| *PRKAA1* | 116.20 | 123.44 | 0.94 | 2.79E-02 | 3.39E-02 |
| *ITGB4* | 343.35 | 263.28 | 1.30 | 1.54E-11 | 3.77E-11 |
| *CASP9* | 13.05 | 17.74 | 0.74 | 1.52E-08 | 3.01E-08 |
| *KRAS* | 107.64 | 117.88 | 0.91 | 1.65E-02 | 2.05E-02 |
| *YWHAQ* | 130.47 | 72.74 | 1.79 | 8.52E-37 | 8.63E-36 |
| *IL2RA* | 7.04 | 6.38 | 1.10 | 2.80E-01 | 3.04E-01 |
| *PDGFRA* | 88.47 | 166.61 | 0.53 | 5.08E-26 | 2.81E-25 |
| *COL4A2* | 394.98 | 268.46 | 1.47 | 8.74E-21 | 3.59E-20 |
| *ITGA7* | 21.33 | 35.69 | 0.60 | 1.74E-16 | 5.89E-16 |
| *CDK4* | 66.65 | 26.90 | 2.48 | 9.86E-58 | 4.28E-56 |
| *MDM2* | 234.16 | 196.94 | 1.19 | 1.56E-06 | 2.77E-06 |
| *LAMC1* | 216.08 | 161.92 | 1.33 | 7.41E-16 | 2.42E-15 |
| *EIF4E2* | 75.14 | 95.91 | 0.78 | 1.69E-15 | 5.46E-15 |
| *RAC1* | 180.81 | 127.60 | 1.42 | 3.51E-26 | 1.97E-25 |
| *IL6* | 4.04 | 3.08 | 1.31 | 6.17E-02 | 7.22E-02 |
| *CHAD* | 8.65 | 21.44 | 0.40 | 2.76E-25 | 1.42E-24 |
| *TLR4* | 51.80 | 37.22 | 1.39 | 1.72E-08 | 3.39E-08 |
| *MYC* | 181.11 | 49.00 | 3.70 | 5.76E-55 | 1.95E-53 |
| *RPS6* | 850.00 | 447.37 | 1.90 | 5.64E-45 | 9.02E-44 |
| *TLR2* | 12.68 | 10.46 | 1.21 | 1.08E-02 | 1.36E-02 |
| *PPP2R1B* | 81.03 | 76.22 | 1.06 | 4.60E-02 | 5.47E-02 |
| *THBS1* | 585.51 | 881.12 | 0.66 | 3.69E-18 | 1.34E-17 |
| *ITGA11* | 64.23 | 19.89 | 3.23 | 1.31E-36 | 1.29E-35 |
| *ITGAV* | 191.03 | 113.43 | 1.68 | 2.91E-30 | 2.27E-29 |
| *FGF5* | 1.02 | 0.92 | 1.11 | 5.99E-01 | 6.24E-01 |
| *FGF2* | 10.04 | 17.66 | 0.57 | 2.79E-13 | 7.86E-13 |
| *EGF* | 2.83 | 6.34 | 0.45 | 1.71E-05 | 2.87E-05 |
| *COL2A1* | 1.47 | 4.17 | 0.35 | 6.37E-11 | 1.49E-10 |
| *ITGB7* | 11.13 | 21.51 | 0.52 | 6.05E-18 | 2.17E-17 |
| *LPAR6* | 36.38 | 37.93 | 0.96 | 4.06E-01 | 4.29E-01 |
| *FGF7* | 8.17 | 13.70 | 0.60 | 1.49E-08 | 2.97E-08 |
| *IGF1R* | 198.20 | 165.95 | 1.19 | 4.97E-07 | 9.05E-07 |
| *PDPK1* | 100.97 | 93.03 | 1.09 | 3.80E-03 | 5.04E-03 |
| *G6PC3* | 23.74 | 16.53 | 1.44 | 2.27E-11 | 5.53E-11 |
| *PIK3R5* | 14.76 | 20.99 | 0.70 | 6.40E-08 | 1.20E-07 |
| *TP53* | 105.07 | 59.63 | 1.76 | 3.25E-24 | 1.54E-23 |
| *RPTOR* | 91.69 | 84.74 | 1.08 | 4.85E-03 | 6.36E-03 |
| *COL6A1* | 306.57 | 360.83 | 0.85 | 5.48E-04 | 8.01E-04 |
| *IFNAR1* | 100.68 | 99.38 | 1.01 | 6.75E-01 | 6.95E-01 |
| *COL6A2* | 313.27 | 376.40 | 0.83 | 1.08E-04 | 1.69E-04 |
| *AKT1* | 153.83 | 152.34 | 1.01 | 7.08E-01 | 7.20E-01 |
| *EPHA2* | 92.70 | 73.40 | 1.26 | 4.71E-05 | 7.65E-05 |
| *ITGA10* | 5.51 | 7.19 | 0.77 | 2.22E-03 | 3.02E-03 |
| *MCL1* | 615.27 | 794.46 | 0.77 | 3.54E-14 | 1.03E-13 |
| *CREB3L4* | 14.85 | 15.22 | 0.98 | 7.14E-01 | 7.23E-01 |
| *EFNA3* | 24.98 | 8.69 | 2.88 | 5.14E-29 | 3.72E-28 |
| *ITGA9* | 72.46 | 59.26 | 1.22 | 2.13E-03 | 2.92E-03 |
| *PDGFC* | 28.55 | 18.83 | 1.52 | 1.45E-09 | 3.08E-09 |
| *OSMR* | 39.06 | 47.83 | 0.82 | 3.79E-05 | 6.20E-05 |
| *PIK3R1* | 154.42 | 149.09 | 1.04 | 3.00E-01 | 3.23E-01 |
| *CREB5* | 27.01 | 24.73 | 1.09 | 2.43E-01 | 2.68E-01 |
| *EGFR* | 175.46 | 217.61 | 0.81 | 2.03E-13 | 5.78E-13 |
| *LPAR4* | 0.40 | 0.68 | 0.58 | 2.33E-02 | 2.87E-02 |
| *IL2RG* | 44.20 | 50.55 | 0.87 | 2.65E-02 | 3.24E-02 |
| *ITGB1* | 328.08 | 209.70 | 1.56 | 2.06E-34 | 1.90E-33 |
| *VEGFC* | 3.79 | 4.00 | 0.95 | 6.03E-01 | 6.26E-01 |
| *EIF4E* | 49.84 | 50.56 | 0.99 | 6.96E-01 | 7.13E-01 |
| *G6PC2* | 0.33 | 0.92 | 0.36 | 1.63E-04 | 2.52E-04 |
| *BCL2L11* | 56.19 | 88.47 | 0.64 | 1.23E-23 | 5.58E-23 |
| *PPP2R5E* | 77.48 | 81.44 | 0.95 | 1.04E-01 | 1.21E-01 |
| *ANGPT1* | 5.02 | 6.82 | 0.74 | 1.88E-03 | 2.60E-03 |
| *PRKCA* | 69.40 | 83.99 | 0.83 | 8.91E-08 | 1.66E-07 |
| *PIK3AP1* | 41.04 | 36.62 | 1.12 | 5.71E-02 | 6.70E-02 |
| *FGF18* | 1.90 | 0.85 | 2.22 | 1.27E-05 | 2.14E-05 |
| *PPP2R2B* | 1.72 | 3.78 | 0.46 | 9.70E-10 | 2.12E-09 |
| *KIT* | 14.58 | 33.84 | 0.43 | 6.08E-17 | 2.10E-16 |
| *CREB3L1* | 96.13 | 195.06 | 0.49 | 1.51E-16 | 5.15E-16 |
| *FGF17* | 0.93 | 0.94 | 0.99 | 9.30E-01 | 9.30E-01 |
| *IFNAR2* | 49.46 | 53.08 | 0.93 | 4.44E-02 | 5.29E-02 |
| *THEM4* | 23.08 | 21.85 | 1.06 | 2.84E-01 | 3.07E-01 |
| *PKN3* | 13.26 | 11.06 | 1.20 | 6.65E-03 | 8.61E-03 |
| *IL6R* | 25.93 | 101.24 | 0.26 | 2.77E-58 | 1.40E-56 |
| *CRTC2* | 37.66 | 40.54 | 0.93 | 3.31E-02 | 3.98E-02 |
| *FGFR4* | 68.96 | 50.37 | 1.37 | 2.80E-09 | 5.83E-09 |
| *ITGA5* | 75.58 | 84.12 | 0.90 | 5.03E-02 | 5.92E-02 |
| *FGF11* | 3.97 | 4.12 | 0.96 | 7.29E-01 | 7.37E-01 |
| *GNG3* | 4.87 | 4.70 | 1.04 | 6.77E-01 | 6.95E-01 |
| *FGF19* | 1.39 | 0.15 | 9.42 | 6.08E-13 | 1.68E-12 |
| *PRKAA2* | 8.33 | 20.32 | 0.41 | 1.41E-08 | 2.84E-08 |
| *JAK1* | 200.53 | 198.85 | 1.01 | 7.01E-01 | 7.15E-01 |
| *COL6A3* | 893.58 | 541.26 | 1.65 | 2.92E-18 | 1.07E-17 |
| *ITGA2* | 206.67 | 82.69 | 2.50 | 1.27E-48 | 2.41E-47 |
| *COL1A2* | 1838.76 | 588.95 | 3.12 | 9.45E-49 | 1.91E-47 |
| *NOS3* | 23.67 | 15.66 | 1.51 | 1.27E-09 | 2.72E-09 |
| *YWHAZ* | 500.42 | 355.26 | 1.41 | 2.85E-27 | 1.73E-26 |
| *SYK* | 111.40 | 98.12 | 1.14 | 1.73E-04 | 2.66E-04 |
| *FIGF* | 0.36 | 1.14 | 0.31 | 4.89E-08 | 9.23E-08 |
| *TSC1* | 114.25 | 137.27 | 0.83 | 5.91E-11 | 1.39E-10 |
| *HSP90B1* | 389.00 | 263.08 | 1.48 | 2.26E-24 | 1.09E-23 |
| *YWHAB* | 389.26 | 223.04 | 1.75 | 1.32E-37 | 1.49E-36 |
| *GNGT2* | 0.71 | 1.46 | 0.49 | 1.10E-05 | 1.87E-05 |
| *PPP2R3B* | 4.34 | 2.42 | 1.79 | 1.09E-08 | 2.20E-08 |
| *MLST8* | 20.78 | 15.06 | 1.38 | 1.05E-09 | 2.27E-09 |
| *DDIT4* | 66.29 | 32.77 | 2.02 | 3.01E-25 | 1.53E-24 |
| *GNG4* | 35.42 | 4.39 | 8.07 | 2.36E-38 | 2.87E-37 |
| *TNXB* | 23.48 | 134.34 | 0.17 | 1.24E-63 | 1.26E-61 |
| *CHRM1* | 1.10 | 3.43 | 0.32 | 4.01E-12 | 1.03E-11 |
| *IL7R* | 35.03 | 79.98 | 0.44 | 8.00E-29 | 5.65E-28 |
| *COL4A3* | 12.26 | 31.40 | 0.39 | 1.96E-23 | 8.77E-23 |
| *MAP2K1* | 32.75 | 28.06 | 1.17 | 4.28E-04 | 6.38E-04 |
| *IRS1* | 109.79 | 73.74 | 1.49 | 4.09E-13 | 1.14E-12 |
| *THBS3* | 45.82 | 52.64 | 0.87 | 3.89E-04 | 5.86E-04 |
| *EFNA1* | 44.49 | 41.85 | 1.06 | 2.25E-01 | 2.52E-01 |
| *PTK2* | 270.40 | 194.92 | 1.39 | 1.90E-26 | 1.11E-25 |
| *YWHAG* | 241.75 | 119.30 | 2.03 | 1.69E-52 | 4.68E-51 |
| *PDGFD* | 5.90 | 19.58 | 0.30 | 8.17E-28 | 5.10E-27 |
| *INSR* | 201.02 | 243.07 | 0.83 | 5.81E-10 | 1.28E-09 |
| *LPAR3* | 1.36 | 2.26 | 0.60 | 1.41E-03 | 1.98E-03 |
| *BCL2L1* | 144.28 | 64.05 | 2.25 | 1.06E-56 | 4.02E-55 |
| *PIK3CD* | 27.33 | 46.48 | 0.59 | 9.96E-22 | 4.33E-21 |
| *BCL2* | 24.42 | 62.11 | 0.39 | 3.73E-39 | 4.72E-38 |
| *PTEN* | 125.77 | 151.99 | 0.83 | 2.25E-09 | 4.71E-09 |
| *LAMB2* | 114.17 | 85.97 | 1.33 | 3.60E-12 | 9.44E-12 |
| *GNB2* | 103.20 | 80.62 | 1.28 | 2.72E-14 | 8.03E-14 |
| *GNG12* | 144.35 | 161.26 | 0.90 | 1.93E-03 | 2.66E-03 |
| *COL6A5* | 0.97 | 3.97 | 0.24 | 1.34E-13 | 3.85E-13 |
| *RELA* | 82.20 | 73.32 | 1.12 | 5.56E-06 | 9.60E-06 |
| *VEGFB* | 34.95 | 26.70 | 1.31 | 3.45E-08 | 6.55E-08 |
| *GNG5* | 52.57 | 46.42 | 1.13 | 5.87E-03 | 7.63E-03 |
| *PIK3R6* | 3.89 | 11.43 | 0.34 | 1.35E-26 | 8.02E-26 |
| *HRAS* | 18.52 | 12.37 | 1.50 | 3.52E-12 | 9.29E-12 |
| *CCNE2* | 25.72 | 20.34 | 1.26 | 2.47E-06 | 4.32E-06 |
| *PPP2R2D* | 41.37 | 49.48 | 0.84 | 2.91E-08 | 5.62E-08 |
| *RPS6KB2* | 35.48 | 40.51 | 0.88 | 6.75E-05 | 1.07E-04 |
| *EIF4E1B* | 0.16 | 0.42 | 0.38 | 7.63E-03 | 9.81E-03 |
| *GNG7* | 3.66 | 22.76 | 0.16 | 2.58E-49 | 5.59E-48 |
| *CD19* | 3.78 | 7.59 | 0.50 | 2.65E-08 | 5.17E-08 |
| *GRB2* | 114.66 | 112.16 | 1.02 | 4.07E-01 | 4.29E-01 |
| *CHRM2* | 2.32 | 4.20 | 0.55 | 1.89E-03 | 2.61E-03 |
| *F2R* | 51.19 | 25.16 | 2.03 | 2.84E-26 | 1.63E-25 |
| *CREB3L2* | 239.22 | 264.74 | 0.90 | 7.18E-04 | 1.04E-03 |
| *CSF1R* | 34.36 | 50.34 | 0.68 | 3.64E-12 | 9.47E-12 |
| *EFNA5* | 10.41 | 25.33 | 0.41 | 2.50E-15 | 7.92E-15 |
| *CSF1* | 28.49 | 47.90 | 0.59 | 3.95E-21 | 1.67E-20 |
| *LPAR5* | 25.37 | 39.84 | 0.64 | 5.44E-20 | 2.15E-19 |
| *IL3RA* | 2.21 | 3.59 | 0.62 | 2.82E-03 | 3.80E-03 |
| *THBS2* | 212.12 | 32.95 | 6.44 | 1.67E-51 | 3.91E-50 |
| *RXRA* | 105.69 | 137.99 | 0.77 | 1.38E-17 | 4.83E-17 |
| *GNG2* | 13.93 | 29.33 | 0.47 | 4.15E-24 | 1.91E-23 |
| *EPOR* | 6.81 | 10.87 | 0.63 | 2.99E-08 | 5.72E-08 |
| *COL4A1* | 509.38 | 243.49 | 2.09 | 1.17E-43 | 1.78E-42 |
| *EIF4EBP1* | 20.83 | 8.84 | 2.36 | 3.54E-25 | 1.76E-24 |
| *COL4A5* | 10.70 | 40.45 | 0.26 | 4.50E-25 | 2.21E-24 |
| *RELN* | 5.68 | 15.85 | 0.36 | 8.90E-18 | 3.15E-17 |
| *LAMA2* | 52.29 | 68.50 | 0.76 | 3.27E-05 | 5.37E-05 |
| *LAMB3* | 118.66 | 96.87 | 1.22 | 1.88E-06 | 3.31E-06 |
| *PDGFA* | 40.23 | 56.15 | 0.72 | 3.25E-11 | 7.84E-11 |
| *COL4A6* | 3.80 | 16.61 | 0.23 | 1.94E-37 | 2.10E-36 |
| *LPAR1* | 12.91 | 46.29 | 0.28 | 6.42E-52 | 1.63E-50 |
| *MTOR* | 172.49 | 189.52 | 0.91 | 8.45E-04 | 1.21E-03 |
| *COL6A6* | 4.17 | 5.82 | 0.72 | 8.10E-04 | 1.17E-03 |
| *NRAS* | 104.64 | 76.74 | 1.36 | 3.26E-15 | 1.01E-14 |
| *CHUK* | 44.48 | 37.81 | 1.18 | 4.50E-04 | 6.67E-04 |
| *ATF6B* | 91.13 | 94.07 | 0.97 | 2.42E-01 | 2.67E-01 |
| *ITGA1* | 200.46 | 177.68 | 1.13 | 1.31E-03 | 1.85E-03 |
| *MTCP1* | 11.24 | 8.83 | 1.27 | 4.08E-04 | 6.11E-04 |
| *PPP2R2A* | 93.07 | 73.44 | 1.27 | 1.11E-07 | 2.06E-07 |
| *GNG10* | 6.37 | 4.00 | 1.59 | 2.92E-08 | 5.62E-08 |
| *EFNA4* | 15.36 | 9.82 | 1.57 | 1.17E-14 | 3.55E-14 |
| *VTN* | 3.50 | 4.45 | 0.79 | 1.11E-02 | 1.39E-02 |