| ID | Descriptio | GeneRatio | BgRatio | pvalue | p.adjust | qvalue | geneID | Count |
|---|---|---|---|---|---|---|---|---|
| hsa04064 | NF-kappa I | 9/146 | 104/8034 | 0.000107 | 0.02536 | 0.023316 | GADD45G/ | 9 |
| hsa04657 | IL-17 signa | 8/146 | 94/8034 | 0.000292 | 0.034642 | 0.03185 | PTGS2/S1C | 8 |
| hsa05140 | Leishmania | 7/146 | 77/8034 | 0.000471 | 0.037211 | 0.034211 | IFNGR1/PT | 7 |
| hsa05169 | Epstein-Ba | 11/146 | 201/8034 | 0.00105 | 0.06219 | 0.057176 | GADD45G/ | 11 |
| hsa05152 | Tuberculos | 10/146 | 180/8034 | 0.001583 | 0.075036 | 0.068987 | IFNGR1/CA | 10 |
| hsa04931 | Insulin resi | 7/146 | 108/8034 | 0.003426 | 0.122787 | 0.112889 | RPS6KA3/F | 7 |
| hsa05134 | Legionello | 5/146 | 57/8034 | 0.003627 | 0.122787 | 0.112889 | CLK4/TLR2 | 5 |
| hsa04668 | TNF signali | 7/146 | 112/8034 | 0.004192 | 0.124182 | 0.114171 | RPS6KA5/F | 7 |
| hsa05321 | Inflammat | 5/146 | 65/8034 | 0.006373 | 0.149957 | 0.137868 | IFNGR1/ST | 5 |
| hsa04145 | Phagosom | 8/146 | 152/8034 | 0.006377 | 0.149957 | 0.137868 | THBS1/CLE | 8 |
| hsa05167 | Kaposi sar | 9/146 | 189/8034 | 0.007407 | 0.149957 | 0.137868 | GNG10/IFN | 9 |
| hsa05168 | Herpes sim | 17/146 | 491/8034 | 0.007593 | 0.149957 | 0.137868 | IFNGR1/ST | 17 |
| hsa04380 | Osteoclast | 7/146 | 128/8034 | 0.00861 | 0.156967 | 0.144313 | SIRPB1/IFN | 7 |
| hsa04115 | p53 signali | 5/146 | 73/8034 | 0.010329 | 0.16319 | 0.150035 | GADD45G/ | 5 |
| hsa04620 | Toll-like re | 6/146 | 104/8034 | 0.011478 | 0.16319 | 0.150035 | STAT1/LY9 | 6 |
| hsa04625 | C-type lect | 6/146 | 104/8034 | 0.011478 | 0.16319 | 0.150035 | CLEC4D/PT | 6 |
| hsa05164 | Influenza A | 8/146 | 170/8034 | 0.012142 | 0.16319 | 0.150035 | IFNGR1/ST | 8 |
| hsa05132 | Salmonella | 9/146 | 206/8034 | 0.01262 | 0.16319 | 0.150035 | TXN/PFN2/ | 9 |
| hsa04659 | Th17 cell d | 6/146 | 107/8034 | 0.013083 | 0.16319 | 0.150035 | IFNGR1/ST | 6 |
| hsa05235 | PD-L1 expr | 5/146 | 89/8034 | 0.022699 | 0.268981 | 0.247297 | IFNGR1/ST | 5 |
| hsa03010 | Ribosome | 7/146 | 158/8034 | 0.024856 | 0.280515 | 0.257902 | RPS28/RPS | 7 |
| hsa05215 | Prostate ca | 5/146 | 97/8034 | 0.031448 | 0.335075 | 0.308064 | PLAU/NKX | 5 |
| hsa04640 | Hematopo | 5/146 | 99/8034 | 0.033924 | 0.335075 | 0.308064 | CSF2RA/M | 5 |
| hsa05211 | Renal cell c | 4/146 | 69/8034 | 0.03644 | 0.335075 | 0.308064 | PAK2/RAP( | 4 |
| hsa04210 | Apoptosis | 6/146 | 136/8034 | 0.037273 | 0.335075 | 0.308064 | GADD45G/ | 6 |
| hsa05219 | Bladder ca | 3/146 | 41/8034 | 0.037914 | 0.335075 | 0.308064 | RPS6KA5/T | 3 |
| hsa04910 | Insulin sign | 6/146 | 137/8034 | 0.038419 | 0.335075 | 0.308064 | RAPGEF1/I | 6 |
| hsa05162 | Measles | 6/146 | 138/8034 | 0.039587 | 0.335075 | 0.308064 | STAT1/EIF2 | 6 |
| hsa04010 | MAPK sign | 10/146 | 294/8034 | 0.041361 | 0.338019 | 0.31077 | GADD45G/ | 10 |
| hsa04621 | NOD-like r | 7/146 | 181/8034 | 0.04664 | 0.368457 | 0.338755 | TXN/CAMF | 7 |
| hsa03050 | Proteasom | 3/146 | 46/8034 | 0.050599 | 0.374749 | 0.344539 | PSMD12/P | 3 |
| hsa04930 | Type II dial | 3/146 | 46/8034 | 0.050599 | 0.374749 | 0.344539 | CACNA1E/ | 3 |
| hsa05145 | Toxoplasm | 5/146 | 112/8034 | 0.052938 | 0.380191 | 0.349542 | IFNGR1/ST | 5 |
| hsa00770 | Pantothen | 2/146 | 21/8034 | 0.05498 | 0.383246 | 0.352351 | UPB1/VNN | 2 |
| hsa05144 | Malaria | 3/146 | 50/8034 | 0.062042 | 0.407304 | 0.37447 | THBS1/TLR | 3 |
| hsa05160 | Hepatitis C | 6/146 | 155/8034 | 0.062945 | 0.407304 | 0.37447 | STAT1/IFIT | 6 |
| hsa04614 | Renin-angi | 2/146 | 23/8034 | 0.064709 | 0.407304 | 0.37447 | MME/ANP | 2 |
| hsa04722 | Neurotrop | 5/146 | 119/8034 | 0.065306 | 0.407304 | 0.37447 | RPS6KA3/F | 5 |
| hsa04152 | AMPK sign | 5/146 | 120/8034 | 0.067195 | 0.408339 | 0.375421 | PPP2R3A/F | 5 |
| hsa05131 | Shigellosis | 8/146 | 242/8034 | 0.073476 | 0.430725 | 0.396003 | RPS6KA5/U | 8 |
| hsa05161 | Hepatitis B | 6/146 | 162/8034 | 0.074514 | 0.430725 | 0.396003 | STAT1/CRE | 6 |
| hsa05205 | Proteoglyc | 7/146 | 205/8034 | 0.079567 | 0.447649 | 0.411562 | PLAU/THBS | 7 |
| hsa04658 | Th1 and Th | 4/146 | 92/8034 | 0.086111 | 0.447649 | 0.411562 | IFNGR1/ST | 4 |
| hsa05222 | Small cell l | 4/146 | 92/8034 | 0.086111 | 0.447649 | 0.411562 | GADD45G/ | 4 |
| hsa04060 | Cytokine-c | 9/146 | 294/8034 | 0.086958 | 0.447649 | 0.411562 | CSF2RA/IFI | 9 |
| hsa00524 | Neomycin, | 1/146 | 5/8034 | 0.087642 | 0.447649 | 0.411562 | HK2 | 1 |
| hsa05323 | Rheumato | 4/146 | 93/8034 | 0.088774 | 0.447649 | 0.411562 | TNFSF13B/ | 4 |

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|---|---|---|---|---|---|---|---|---|
| hsa05170 | Human im | 7/146 | 212/8034 | 0.09121 | 0.45035 | 0.414046 | GNG10/PA | 7 |
| hsa05200 | Pathways i | 14/146 | 531/8034 | 0.101878 | 0.486241 | 0.447043 | GADD45G/ | 14 |
| hsa00410 | beta-Alani | 2/146 | 30/8034 | 0.102582 | 0.486241 | 0.447043 | UPB1/ABA | 2 |
| hsa01523 | Antifolate | 2/146 | 31/8034 | 0.108401 | 0.503744 | 0.463136 | ABCC5/FO | 2 |
| hsa05142 | Chagas dis | 4/146 | 102/8034 | 0.114478 | 0.51532 | 0.473779 | IFNGR1/FA | 4 |
| hsa05163 | Human cyt | 7/146 | 225/8034 | 0.11524 | 0.51532 | 0.473779 | GNG10/PT | 7 |
| hsa00051 | Fructose a | 2/146 | 33/8034 | 0.120289 | 0.527936 | 0.485377 | PFKFB2/HK | 2 |
| hsa00640 | Propanoat | 2/146 | 34/8034 | 0.12635 | 0.538807 | 0.495372 | DLD/ABAT | 2 |
| hsa04920 | Adipocytol | 3/146 | 69/8034 | 0.130118 | 0.538807 | 0.495372 | ACSL1/IRS2 | 3 |
| hsa00760 | Nicotinate | 2/146 | 35/8034 | 0.132482 | 0.538807 | 0.495372 | NT5C2/BST | 2 |
| hsa05010 | Alzheimer | 10/146 | 369/8034 | 0.133951 | 0.538807 | 0.495372 | PTGS2/MM | 10 |
| hsa04622 | RIG-I-like r | 3/146 | 70/8034 | 0.134238 | 0.538807 | 0.495372 | TRIM25/FA | 3 |
| hsa05130 | Pathogenic | 6/146 | 192/8034 | 0.136681 | 0.538807 | 0.495372 | PAK2/FADI | 6 |
| hsa00500 | Starch and | 2/146 | 36/8034 | 0.13868 | 0.538807 | 0.495372 | PYGL/HK2 | 2 |
| hsa05143 | African try | 2/146 | 37/8034 | 0.144941 | 0.545255 | 0.5013 | F2RL1/IL18 | 2 |
| hsa05216 | Thyroid ca | 2/146 | 37/8034 | 0.144941 | 0.545255 | 0.5013 | GADD45G/ | 2 |
| hsa05214 | Glioma | 3/146 | 75/8034 | 0.155484 | 0.574021 | 0.527748 | GADD45G/ | 3 |
| hsa05212 | Pancreatic | 3/146 | 76/8034 | 0.159854 | 0.574021 | 0.527748 | GADD45G/ | 3 |
| hsa05220 | Chronic my | 3/146 | 76/8034 | 0.159854 | 0.574021 | 0.527748 | GADD45G/ | 3 |
| hsa04217 | Necroptosi | 5/146 | 159/8034 | 0.163024 | 0.576669 | 0.530182 | IFNGR1/ST | 5 |
| hsa04630 | JAK-STAT s | 5/146 | 162/8034 | 0.171986 | 0.59942 | 0.551099 | CSF2RA/IFI | 5 |
| hsa04940 | Type I diab | 2/146 | 43/8034 | 0.183585 | 0.630575 | 0.579743 | ICA1/PTPR | 2 |
| hsa02010 | ABC transp | 2/146 | 45/8034 | 0.196786 | 0.666263 | 0.612553 | ABCC5/TAI | 2 |
| hsa05206 | MicroRNAs | 8/146 | 310/8034 | 0.202145 | 0.674765 | 0.62037 | PLAU/RPS6 | 8 |
| hsa04926 | Relaxin sig | 4/146 | 129/8034 | 0.207327 | 0.682451 | 0.627436 | GNG10/CR | 4 |
| hsa00280 | Valine, leu | 2/146 | 48/8034 | 0.216794 | 0.700673 | 0.644189 | DLD/ABAT | 2 |
| hsa04728 | Dopamine | 4/146 | 132/8034 | 0.218775 | 0.700673 | 0.644189 | GNG10/PP | 4 |
| hsa05030 | Cocaine ad | 2/146 | 49/8034 | 0.223505 | 0.706276 | 0.649341 | CREB5/CDI | 2 |
| hsa03015 | mRNA surv | 3/146 | 91/8034 | 0.229218 | 0.714799 | 0.657177 | PPP2R3A/I | 3 |
| hsa05165 | Human pa | 8/146 | 330/8034 | 0.251319 | 0.763534 | 0.701984 | PPP2R3A/I | 8 |
| hsa05150 | Staphyloco | 3/146 | 96/8034 | 0.253511 | 0.763534 | 0.701984 | CAMP/FCG | 3 |
| hsa00730 | Thiamine r | 1/146 | 16/8034 | 0.254511 | 0.763534 | 0.701984 | ALPP | 1 |
| hsa04062 | Chemokine | 5/146 | 189/8034 | 0.259973 | 0.77017 | 0.708084 | GNG10/ST | 5 |
| hsa05202 | Transcripti | 5/146 | 192/8034 | 0.270387 | 0.78008 | 0.717195 | GADD45G/ | 5 |
| hsa04923 | Regulation | 2/146 | 56/8034 | 0.270791 | 0.78008 | 0.717195 | PTGS2/IRS | 2 |
| hsa00240 | Pyrimidine | 2/146 | 57/8034 | 0.277559 | 0.78008 | 0.717195 | UPB1/NT5 | 2 |
| hsa01212 | Fatty acid | 2/146 | 57/8034 | 0.277559 | 0.78008 | 0.717195 | ACSL1/HSD | 2 |
| hsa00061 | Fatty acid | 1/146 | 18/8034 | 0.281415 | 0.78008 | 0.717195 | ACSL1 | 1 |
| hsa05213 | Endometri | 2/146 | 58/8034 | 0.284325 | 0.78008 | 0.717195 | GADD45G/ | 2 |
| hsa04261 | Adrenergic | 4/146 | 149/8034 | 0.286358 | 0.78008 | 0.717195 | PPP2R3A/I | 4 |
| hsa05012 | Parkinson | 6/146 | 249/8034 | 0.299229 | 0.799963 | 0.735476 | TXN/PSMD | 6 |
| hsa04510 | Focal adhe | 5/146 | 201/8034 | 0.302137 | 0.799963 | 0.735476 | PAK2/RAP( | 5 |
| hsa04921 | Oxytocin si | 4/146 | 154/8034 | 0.306847 | 0.799963 | 0.735476 | PTGS2/CAI | 4 |
| hsa04066 | HIF-1 signa | 3/146 | 109/8034 | 0.318006 | 0.799963 | 0.735476 | IFNGR1/HK | 3 |
| hsa00590 | Arachidoni | 2/146 | 63/8034 | 0.318027 | 0.799963 | 0.735476 | PTGS2/CYP | 2 |
| hsa04623 | Cytosolic D | 2/146 | 63/8034 | 0.318027 | 0.799963 | 0.735476 | NFKBIA/IL1 | 2 |
| hsa05217 | Basal cell c | 2/146 | 63/8034 | 0.318027 | 0.799963 | 0.735476 | GADD45G/ | 2 |
| hsa05016 | Huntingtor | 7/146 | 306/8034 | 0.321461 | 0.799963 | 0.735476 | POLR2J/PS | 7 |

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|---|---|---|---|---|---|---|---|---|
| hsa00340 | Histidine m | 1/146 | 22/8034 | 0.332363 | 0.799963 | 0.735476 | HAL | 1 |
| hsa04670 | Leukocyte | 3/146 | 113/8034 | 0.337997 | 0.799963 | 0.735476 | RAP1A/MI | 3 |
| hsa00010 | Glycolysis / | 2/146 | 67/8034 | 0.344732 | 0.799963 | 0.735476 | DLD/HK2 | 2 |
| hsa04720 | Long-term | 2/146 | 67/8034 | 0.344732 | 0.799963 | 0.735476 | RPS6KA3/F | 2 |
| hsa04810 | Regulation | 5/146 | 214/8034 | 0.348921 | 0.799963 | 0.735476 | PAK2/PFN2 | 5 |
| hsa04137 | Mitophagy | 2/146 | 68/8034 | 0.351359 | 0.799963 | 0.735476 | USP15/HIF | 2 |
| hsa05223 | Non-small | 2/146 | 68/8034 | 0.351359 | 0.799963 | 0.735476 | GADD45G/ | 2 |
| hsa04977 | Vitamin di | 1/146 | 24/8034 | 0.356475 | 0.799963 | 0.735476 | LMBRD1 | 1 |
| hsa04022 | cGMP-PKG | 4/146 | 167/8034 | 0.360673 | 0.799963 | 0.735476 | RGS2/CREI | 4 |
| hsa04141 | Protein pro | 4/146 | 167/8034 | 0.360673 | 0.799963 | 0.735476 | UBE2D3/EI | 4 |
| hsa05120 | Epithelial c | 2/146 | 70/8034 | 0.364543 | 0.799963 | 0.735476 | NFKBIA/CX | 2 |
| hsa05230 | Central car | 2/146 | 70/8034 | 0.364543 | 0.799963 | 0.735476 | HK2/HIF1A | 2 |
| hsa04071 | Sphingolip | 3/146 | 119/8034 | 0.367916 | 0.799963 | 0.735476 | PPP2R3A/F | 3 |
| hsa04935 | Growth ho | 3/146 | 119/8034 | 0.367916 | 0.799963 | 0.735476 | STAT1/CRI | 3 |
| hsa05218 | Melanoma | 2/146 | 72/8034 | 0.377626 | 0.80352 | 0.738746 | GADD45G/ | 2 |
| hsa04919 | Thyroid ho | 3/146 | 121/8034 | 0.377845 | 0.80352 | 0.738746 | PFKFB2/ST | 3 |
| hsa00790 | Folate bios | 1/146 | 26/8034 | 0.379722 | 0.80352 | 0.738746 | ALPP | 1 |
| hsa05100 | Bacterial in | 2/146 | 73/8034 | 0.384127 | 0.805646 | 0.740701 | CLTCL1/AR | 2 |
| hsa00062 | Fatty acid e | 1/146 | 27/8034 | 0.391031 | 0.805864 | 0.740901 | HSD17B12 | 1 |
| hsa01040 | Biosynthes | 1/146 | 27/8034 | 0.391031 | 0.805864 | 0.740901 | HSD17B12 | 1 |
| hsa00650 | Butanoate | 1/146 | 28/8034 | 0.402135 | 0.815972 | 0.750194 | ABAT | 1 |
| hsa04714 | Thermoge | 5/146 | 231/8034 | 0.410621 | 0.815972 | 0.750194 | RPS6KA3/A | 5 |
| hsa04142 | Lysosome | 3/146 | 128/8034 | 0.412319 | 0.815972 | 0.750194 | ASAH1/CLT | 3 |
| hsa04612 | Antigen pr | 2/146 | 78/8034 | 0.416174 | 0.815972 | 0.750194 | B2M/TAP2 | 2 |
| hsa05135 | Yersinia in | 3/146 | 130/8034 | 0.422068 | 0.815972 | 0.750194 | RPS6KA3/M | 3 |
| hsa03018 | RNA degra | 2/146 | 79/8034 | 0.422485 | 0.815972 | 0.750194 | TOB1/EXO | 2 |
| hsa00020 | Citrate cyc | 1/146 | 30/8034 | 0.423743 | 0.815972 | 0.750194 | DLD | 1 |
| hsa00630 | Glyoxylate | 1/146 | 30/8034 | 0.423743 | 0.815972 | 0.750194 | DLD | 1 |
| hsa04068 | FoxO signa | 3/146 | 131/8034 | 0.426922 | 0.815972 | 0.750194 | GADD45G/ | 3 |
| hsa00052 | Galactose | 1/146 | 31/8034 | 0.434255 | 0.816813 | 0.750967 | HK2 | 1 |
| hsa03020 | RNA polym | 1/146 | 31/8034 | 0.434255 | 0.816813 | 0.750967 | POLR2J | 1 |
| hsa04215 | Apoptosis | 1/146 | 32/8034 | 0.444576 | 0.829641 | 0.762762 | FADD | 1 |
| hsa04140 | Autophagy | 3/146 | 137/8034 | 0.455739 | 0.836049 | 0.768653 | EIF2AK4/H | 3 |
| hsa04610 | Compleme | 2/146 | 85/8034 | 0.459596 | 0.836049 | 0.768653 | PLAU/PLAU | 2 |
| hsa04151 | PI3K-Akt si | 7/146 | 354/8034 | 0.465037 | 0.836049 | 0.768653 | GNG10/PP | 7 |
| hsa05418 | Fluid shear | 3/146 | 139/8034 | 0.465213 | 0.836049 | 0.768653 | TXN/MMP | 3 |
| hsa05210 | Colorectal | 2/146 | 86/8034 | 0.465648 | 0.836049 | 0.768653 | GADD45G/ | 2 |
| hsa04540 | Gap junctio | 2/146 | 88/8034 | 0.477632 | 0.840468 | 0.772716 | MAP3K2/T | 2 |
| hsa04211 | Longevity r | 2/146 | 89/8034 | 0.483563 | 0.840468 | 0.772716 | CREB5/IRS | 2 |
| hsa04727 | GABAergic | 2/146 | 89/8034 | 0.483563 | 0.840468 | 0.772716 | GNG10/AB | 2 |
| hsa00250 | Alanine, as | 1/146 | 36/8034 | 0.484023 | 0.840468 | 0.772716 | ABAT | 1 |
| hsa05032 | Morphine | 2/146 | 91/8034 | 0.4953 | 0.840468 | 0.772716 | GNG10/PD | 2 |
| hsa05340 | Primary im | 1/146 | 38/8034 | 0.50269 | 0.840468 | 0.772716 | TAP2 | 1 |
| hsa04666 | Fc gamma | 2/146 | 93/8034 | 0.506869 | 0.840468 | 0.772716 | FCGR3B/AI | 2 |
| hsa04970 | Salivary se | 2/146 | 93/8034 | 0.506869 | 0.840468 | 0.772716 | CAMP/BST | 2 |
| hsa05203 | Viral carcir | 4/146 | 204/8034 | 0.510575 | 0.840468 | 0.772716 | EIF2AK2/C | 4 |
| hsa04932 | Non-alcoh | 3/146 | 149/8034 | 0.511451 | 0.840468 | 0.772716 | IRS2/MLX/ | 3 |
| hsa00620 | Pyruvate m | 1/146 | 39/8034 | 0.51177 | 0.840468 | 0.772716 | DLD | 1 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| hsa04974 | Protein dig | 2/146 | 95/8034 | 0.518266 | 0.840468 | 0.772716 | MME/SLC3 | 2 |
| hsa00260 | Glycine, se | 1/146 | 40/8034 | 0.520686 | 0.840468 | 0.772716 | DLD | 1 |
| hsa04216 | Ferroptosi | 1/146 | 41/8034 | 0.52944 | 0.840468 | 0.772716 | ACSL1 | 1 |
| hsa04713 | Circadian e | 2/146 | 97/8034 | 0.529488 | 0.840468 | 0.772716 | GNG10/RP | 2 |
| hsa04015 | Rap1 signa | 4/146 | 210/8034 | 0.533545 | 0.840468 | 0.772716 | RAPGEF1/ | 4 |
| hsa04925 | Aldosteror | 2/146 | 98/8034 | 0.535033 | 0.840468 | 0.772716 | CAMK1D/( | 2 |
| hsa00380 | Tryptopha | 1/146 | 42/8034 | 0.538035 | 0.840468 | 0.772716 | DLD | 1 |
| hsa04934 | Cushing sy | 3/146 | 155/8034 | 0.538178 | 0.840468 | 0.772716 | CREB5/RAI | 3 |
| hsa04061 | Viral prote | 2/146 | 100/8034 | 0.545989 | 0.840468 | 0.772716 | IL18/CXCL | 2 |
| hsa00071 | Fatty acid ( | 1/146 | 44/8034 | 0.554761 | 0.840468 | 0.772716 | ACSL1 | 1 |
| hsa04962 | Vasopressi | 1/146 | 44/8034 | 0.554761 | 0.840468 | 0.772716 | CREB5 | 1 |
| hsa04024 | cAMP signa | 4/146 | 216/8034 | 0.555979 | 0.840468 | 0.772716 | CREB5/PPF | 4 |
| hsa04972 | Pancreatic | 2/146 | 102/8034 | 0.556766 | 0.840468 | 0.772716 | RAP1A/BS | 2 |
| hsa05146 | Amoebiasi | 2/146 | 102/8034 | 0.556766 | 0.840468 | 0.772716 | TLR2/CXCL | 2 |
| hsa03022 | Basal trans | 1/146 | 45/8034 | 0.562897 | 0.844345 | 0.77628 | TAF15 | 1 |
| hsa04660 | T cell recep | 2/146 | 104/8034 | 0.567361 | 0.845689 | 0.777516 | PAK2/NFKI | 2 |
| hsa04922 | Glucagon s | 2/146 | 106/8034 | 0.577775 | 0.846658 | 0.778406 | PYGL/CREE | 2 |
| hsa00600 | Sphingolipi | 1/146 | 47/8034 | 0.578728 | 0.846658 | 0.778406 | ASAH1 | 1 |
| hsa04973 | Carbohydr | 1/146 | 47/8034 | 0.578728 | 0.846658 | 0.778406 | HK2 | 1 |
| hsa00520 | Amino sug | 1/146 | 48/8034 | 0.586429 | 0.85266 | 0.783925 | HK2 | 1 |
| hsa04672 | Intestinal i | 1/146 | 49/8034 | 0.59399 | 0.858387 | 0.78919 | TNFSF13B | 1 |
| hsa04913 | Ovarian ste | 1/146 | 51/8034 | 0.608702 | 0.873513 | 0.803096 | PTGS2 | 1 |
| hsa04725 | Cholinergic | 2/146 | 113/8034 | 0.612781 | 0.873513 | 0.803096 | GNG10/CR | 2 |
| hsa04726 | Serotoner | 2/146 | 115/8034 | 0.62237 | 0.873513 | 0.803096 | GNG10/PT | 2 |
| hsa04330 | Notch sign | 1/146 | 53/8034 | 0.622885 | 0.873513 | 0.803096 | DTX3L | 1 |
| hsa04961 | Endocrine | 1/146 | 53/8034 | 0.622885 | 0.873513 | 0.803096 | CLTCL1 | 1 |
| hsa01200 | Carbon me | 2/146 | 117/8034 | 0.631777 | 0.880772 | 0.80977 | DLD/HK2 | 2 |
| hsa03013 | RNA transp | 3/146 | 180/8034 | 0.640012 | 0.884786 | 0.813461 | TACC3/UPI | 3 |
| hsa00480 | Glutathion | 1/146 | 57/8034 | 0.649737 | 0.884786 | 0.813461 | ANPEP | 1 |
| hsa04370 | VEGF signa | 1/146 | 59/8034 | 0.662442 | 0.884786 | 0.813461 | PTGS2 | 1 |
| hsa04110 | Cell cycle | 2/146 | 124/8034 | 0.663273 | 0.884786 | 0.813461 | GADD45G/ | 2 |
| hsa04611 | Platelet ac | 2/146 | 124/8034 | 0.663273 | 0.884786 | 0.813461 | PPP1R12A, | 2 |
| hsa04144 | Endocytosi | 4/146 | 248/8034 | 0.665146 | 0.884786 | 0.813461 | CLTCL1/FC | 4 |
| hsa05034 | Alcoholism | 3/146 | 187/8034 | 0.66557 | 0.884786 | 0.813461 | GNG10/CR | 3 |
| hsa00140 | Steroid ho | 1/146 | 61/8034 | 0.674689 | 0.884786 | 0.813461 | HSD17B12 | 1 |
| hsa00310 | Lysine deg | 1/146 | 61/8034 | 0.674689 | 0.884786 | 0.813461 | DLD | 1 |
| hsa00561 | Glycerolipi | 1/146 | 61/8034 | 0.674689 | 0.884786 | 0.813461 | MBOAT1 | 1 |
| hsa04213 | Longevity r | 1/146 | 62/8034 | 0.680646 | 0.884786 | 0.813461 | IRS2 | 1 |
| hsa00230 | Purine me | 2/146 | 130/8034 | 0.688529 | 0.884786 | 0.813461 | PDE7A/NT | 2 |
| hsa04650 | Natural kill | 2/146 | 131/8034 | 0.692585 | 0.884786 | 0.813461 | IFNGR1/FC | 2 |
| hsa04020 | Calcium sig | 3/146 | 196/8034 | 0.696476 | 0.884786 | 0.813461 | CACNA1E/ | 3 |
| hsa04927 | Cortisol sy | 1/146 | 65/8034 | 0.697874 | 0.884786 | 0.813461 | CREB5 | 1 |
| hsa05017 | Spinocereb | 2/146 | 133/8034 | 0.700567 | 0.884786 | 0.813461 | PSMD12/P | 2 |
| hsa04664 | Fc epsilon | 1/146 | 68/8034 | 0.71418 | 0.884786 | 0.813461 | ALOX5AP | 1 |
| hsa04371 | Apelin sign | 2/146 | 137/8034 | 0.71602 | 0.884786 | 0.813461 | GNG10/HD | 2 |
| hsa05031 | Amphetam | 1/146 | 69/8034 | 0.719418 | 0.884786 | 0.813461 | CREB5 | 1 |
| hsa04915 | Estrogen si | 2/146 | 138/8034 | 0.719778 | 0.884786 | 0.813461 | CREB5/MM | 2 |
| hsa04917 | Prolactin s | 1/146 | 70/8034 | 0.724561 | 0.884786 | 0.813461 | STAT1 | 1 |

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|---|---|---|---|---|---|---|---|---|
| hsa00562 | Inositol ph | 1/146 | 73/8034 | 0.739436 | 0.884786 | 0.813461 | SYNJ2 | 1 |
| hsa01524 | Platinum d | 1/146 | 73/8034 | 0.739436 | 0.884786 | 0.813461 | FADD | 1 |
| hsa04918 | Thyroid ho | 1/146 | 75/8034 | 0.748906 | 0.884786 | 0.813461 | CREB5 | 1 |
| hsa05224 | Breast can | 2/146 | 147/8034 | 0.751758 | 0.884786 | 0.813461 | GADD45G/ | 2 |
| hsa05133 | Pertussis | 1/146 | 76/8034 | 0.753512 | 0.884786 | 0.813461 | LY96 | 1 |
| hsa04514 | Cell adhesi | 2/146 | 148/8034 | 0.755112 | 0.884786 | 0.813461 | NTNG2/CD | 2 |
| hsa04723 | Retrograde | 2/146 | 148/8034 | 0.755112 | 0.884786 | 0.813461 | GNG10/PT | 2 |
| hsa03320 | PPAR signa | 1/146 | 77/8034 | 0.758034 | 0.884786 | 0.813461 | ACSL1 | 1 |
| hsa05412 | Arrhythmo | 1/146 | 77/8034 | 0.758034 | 0.884786 | 0.813461 | CDH2 | 1 |
| hsa03040 | Spliceoson | 2/146 | 149/8034 | 0.758427 | 0.884786 | 0.813461 | RBMXL1/R | 2 |
| hsa05226 | Gastric car | 2/146 | 149/8034 | 0.758427 | 0.884786 | 0.813461 | GADD45G/ | 2 |
| hsa04721 | Synaptic ve | 1/146 | 78/8034 | 0.762474 | 0.884786 | 0.813461 | CLTCL1 | 1 |
| hsa05166 | Human T-c | 3/146 | 219/8034 | 0.765632 | 0.884786 | 0.813461 | B2M/CREB | 3 |
| hsa00983 | Drug meta | 1/146 | 79/8034 | 0.766833 | 0.884786 | 0.813461 | UPB1 | 1 |
| hsa04662 | B cell recep | 1/146 | 82/8034 | 0.779438 | 0.884786 | 0.813461 | NFKBIA | 1 |
| hsa05204 | Chemical c | 1/146 | 82/8034 | 0.779438 | 0.884786 | 0.813461 | PTGS2 | 1 |
| hsa04218 | Cellular se | 2/146 | 156/8034 | 0.78057 | 0.884786 | 0.813461 | GADD45G/ | 2 |
| hsa04146 | Peroxisom | 1/146 | 83/8034 | 0.783488 | 0.884786 | 0.813461 | ACSL1 | 1 |
| hsa04012 | ErbB signal | 1/146 | 85/8034 | 0.791367 | 0.884786 | 0.813461 | PAK2 | 1 |
| hsa04911 | Insulin sec | 1/146 | 86/8034 | 0.795199 | 0.884786 | 0.813461 | CREB5 | 1 |
| hsa04530 | Tight junct | 2/146 | 161/8034 | 0.795287 | 0.884786 | 0.813461 | RAP1A/TU | 2 |
| hsa04014 | Ras signalir | 3/146 | 232/8034 | 0.798761 | 0.884786 | 0.813461 | GNG10/PA | 3 |
| hsa04260 | Cardiac mu | 1/146 | 87/8034 | 0.798961 | 0.884786 | 0.813461 | COX7B | 1 |
| hsa04512 | ECM-recep | 1/146 | 88/8034 | 0.802654 | 0.884786 | 0.813461 | THBS1 | 1 |
| hsa05225 | Hepatocell | 2/146 | 168/8034 | 0.814434 | 0.886962 | 0.815461 | GADD45G/ | 2 |
| hsa04912 | GnRH signa | 1/146 | 93/8034 | 0.820134 | 0.886962 | 0.815461 | MAP3K2 | 1 |
| hsa04350 | TGF-beta s | 1/146 | 94/8034 | 0.823441 | 0.886962 | 0.815461 | THBS1 | 1 |
| hsa04070 | Phosphatic | 1/146 | 97/8034 | 0.833004 | 0.886962 | 0.815461 | SYNJ2 | 1 |
| hsa00564 | Glycerophe | 1/146 | 98/8034 | 0.836076 | 0.886962 | 0.815461 | MBOAT1 | 1 |
| hsa01522 | Endocrine | 1/146 | 98/8034 | 0.836076 | 0.886962 | 0.815461 | MMP9 | 1 |
| hsa05231 | Choline me | 1/146 | 98/8034 | 0.836076 | 0.886962 | 0.815461 | HIF1A | 1 |
| hsa04914 | Progesterc | 1/146 | 99/8034 | 0.839092 | 0.886962 | 0.815461 | RPS6KA3 | 1 |
| hsa04750 | Inflammat | 1/146 | 100/8034 | 0.842052 | 0.886962 | 0.815461 | F2RL1 | 1 |
| hsa04933 | AGE-RAGE | 1/146 | 100/8034 | 0.842052 | 0.886962 | 0.815461 | STAT1 | 1 |
| hsa04360 | Axon guida | 2/146 | 181/8034 | 0.845814 | 0.886982 | 0.81548 | PAK2/NTN | 2 |
| hsa04928 | Parathyroi | 1/146 | 106/8034 | 0.858714 | 0.896542 | 0.82427 | CREB5 | 1 |
| hsa04724 | Glutamate | 1/146 | 114/8034 | 0.878244 | 0.912911 | 0.839319 | GNG10 | 1 |
| hsa04114 | Oocyte me | 1/146 | 128/8034 | 0.906186 | 0.937843 | 0.862241 | RPS6KA3 | 1 |
| hsa00190 | Oxidative p | 1/146 | 133/8034 | 0.914536 | 0.938997 | 0.863302 | COX7B | 1 |
| hsa04270 | Vascular sr | 1/146 | 135/8034 | 0.917666 | 0.938997 | 0.863302 | PPP1R12A | 1 |
| hsa05322 | Systemic lu | 1/146 | 136/8034 | 0.919187 | 0.938997 | 0.863302 | FCGR3B | 1 |
| hsa04120 | Ubiquitin r | 1/146 | 140/8034 | 0.925 | 0.94088 | 0.865033 | UBE2D3 | 1 |
| hsa04150 | mTOR sign | 1/146 | 155/8034 | 0.943332 | 0.954518 | 0.877571 | RPS6KA3 | 1 |
| hsa04310 | Wnt signal | 1/146 | 160/8034 | 0.948393 | 0.954518 | 0.877571 | CHD8 | 1 |
| hsa04080 | Neuroactiv | 3/146 | 340/8034 | 0.95049 | 0.954518 | 0.877571 | F2RL1/LTB | 3 |
| hsa04740 | Olfactory t | 1/146 | 448/8034 | 0.999787 | 0.999787 | 0.919192 | RGS2 | 1 |