**Supplementary Table 2**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| HS vs Ctrl Scramble | | | | | | | | | | | | | |
| Term | Overlap | P-value | Adjusted P-value | | | Old P-value | Old Adjusted P-value | | | Odds Ratio | Combined Score | | | |
| **Attenuation phase Homo sapiens R-HSA-3371568** | **12/26** | **1.25E-14** | **8.13E-12** | | | **0** | **0** | | | **46.17739** | **1478.384** | | | |
| **HSF1-dependent transactivation Homo sapiens R-HSA-3371571** | **12/34** | **6.18E-13** | **2.02E-10** | | | **0** | **0** | | | **29.37363** | **825.7373** | | | |
| **HSF1 activation Homo sapiens R-HSA-3371511** | **11/29** | **2.29E-12** | **4.98E-10** | | | **0** | **0** | | | **32.82588** | **879.8154** | | | |
| **Regulation of HSF1-mediated heat shock response Homo sapiens R-HSA-3371453** | **14/80** | **2.65E-10** | **4.20E-08** | | | **0** | **0** | | | **11.46041** | **252.6976** | | | |
| **Cellular response to heat stress Homo sapiens R-HSA-3371556** | **15/96** | **3.22E-10** | **4.20E-08** | | | **0** | **0** | | | **10.02514** | **219.1085** | | | |
| **Generic Transcription Pathway Homo sapiens R-HSA-212436** | **43/812** | **9.73E-10** | **1.06E-07** | | | **0** | **0** | | | **3.166098** | **65.69711** | | | |
| **Cellular responses to stress Homo sapiens R-HSA-2262752** | **24/367** | **1.37E-07** | **1.28E-05** | | | **0** | **0** | | | **3.832693** | **60.56399** | | | |
| **Gene Expression Homo sapiens R-HSA-74160** | **54/1631** | **3.22E-05** | **0.002628** | | | **0** | **0** | | | **1.91916** | **19.8481** | | | |
| RAF-independent MAPK1/3 activation Homo sapiens R-HSA-112409 | 4/23 | 8.20E-04 | 0.057112 | | | 0 | 0 | | | 11.09508 | 78.84095 | | | |
| Negative regulation of MAPK pathway Homo sapiens R-HSA-5675221 | 5/40 | 8.76E-04 | 0.057112 | | | 0 | 0 | | | 7.542934 | 53.10378 | | | |
| Developmental Biology Homo sapiens R-HSA-1266738 | 27/786 | 0.002001 | 0.111746 | | | 0 | 0 | | | 1.922885 | 11.9491 | | | |
| Receptor-ligand binding initiates the second proteolytic cleavage of Notch receptor Homo sapiens R-HSA-156988 | 3/14 | 0.002057 | 0.111746 | | | 0 | 0 | | | 14.34048 | 88.71977 | | | |
| Constitutive Signaling by NOTCH1 HD Domain Mutants Homo sapiens R-HSA-2691232 | 3/15 | 0.002535 | 0.11807 | | | 0 | 0 | | | 13.14477 | 78.57242 | | | |
| Signaling by NOTCH1 HD Domain Mutants in Cancer Homo sapiens R-HSA-2691230 | 3/15 | 0.002535 | 0.11807 | | | 0 | 0 | | | 13.14477 | 78.57242 | | | |
| SMAD2/SMAD3:SMAD4 heterotrimer regulates transcription Homo sapiens R-HSA-2173796 | 4/32 | 0.002916 | 0.126748 | | | 0 | 0 | | | 7.525346 | 43.92956 | | | |
| Senescence-Associated Secretory Phenotype (SASP) Homo sapiens R-HSA-2559582 | 6/77 | 0.003276 | 0.133479 | | | 0 | 0 | | | 4.465855 | 25.55033 | | | |
| Scavenging by Class F Receptors Homo sapiens R-HSA-3000484 | 2/6 | 0.005029 | 0.182178 | | | 0 | 0 | | | 26.22995 | 138.8205 | | | |
| Uptake and function of diphtheria toxin Homo sapiens R-HSA-5336415 | 2/6 | 0.005029 | 0.182178 | | | 0 | 0 | | | 26.22995 | 138.8205 | | | |
| NOTCH2 Activation and Transmission of Signal to the Nucleus Homo sapiens R-HSA-2979096 | 3/21 | 0.006818 | 0.215906 | | | 0 | 0 | | | 8.7605 | 43.6992 | | | |
| Signaling by NOTCH1 t(7;9)(NOTCH1:M1580 K2555) Translocation Mutant Homo sapiens R-HSA-2660825 | 2/7 | 0.006954 | 0.215906 | | | 0 | 0 | | | 20.98289 | 104.2521 | | | |
| Constitutive Signaling by NOTCH1 t(7;9)(NOTCH1:M1580 K2555) Translocation Mutant Homo sapiens R-HSA-2660826 | 2/7 | 0.006954 | 0.215906 | | | 0 | 0 | | | 20.98289 | 104.2521 | | | |
| MAPK family signaling cascades Homo sapiens R-HSA-5683057 | 12/284 | 0.007782 | 0.230619 | | | 0 | 0 | | | 2.345507 | 11.38976 | | | |
| Transcriptional activity of SMAD2/SMAD3:SMAD4 heterotrimer Homo sapiens R-HSA-2173793 | 4/44 | 0.00923 | 0.261656 | | | 0 | 0 | | | 5.264516 | 24.6657 | | | |
| Signaling by TGF-beta Receptor Complex Homo sapiens R-HSA-170834 | 5/73 | 0.012098 | 0.290601 | | | 0 | 0 | | | 3.875852 | 17.11064 | | | |
| Downregulation of TGF-beta receptor signaling Homo sapiens R-HSA-2173788 | 3/26 | 0.012438 | 0.290601 | | | 0 | 0 | | | 6.854295 | 30.06971 | | | |
| Regulation of Hypoxia-inducible Factor (HIF) by oxygen Homo sapiens R-HSA-1234174 | 3/26 | 0.012438 | 0.290601 | | | 0 | 0 | | | 6.854295 | 30.06971 | | | |
| Cellular response to hypoxia Homo sapiens R-HSA-2262749 | 3/26 | 0.012438 | 0.290601 | | | 0 | 0 | | | 6.854295 | 30.06971 | | | |
| TP53 Regulates Transcription of Cell Cycle Genes Homo sapiens R-HSA-6791312 | 4/48 | 0.01248 | 0.290601 | | | 0 | 0 | | | 4.784946 | 20.9755 | | | |
| POU5F1 (OCT4). SOX2. NANOG repress genes related to differentiation Homo sapiens R-HSA-2892245 | 2/10 | 0.014356 | 0.312006 | | | 0 | 0 | | | 13.1123 | 55.64309 | | | |
| Regulation of gene expression by Hypoxia-inducible Factor Homo sapiens R-HSA-1234158 | 2/10 | 0.014356 | 0.312006 | | | 0 | 0 | | | 13.1123 | 55.64309 | | | |
| Transcriptional Regulation by TP53 Homo sapiens R-HSA-3700989 | 13/348 | 0.015013 | 0.313871 | | | 0 | 0 | | | 2.062062 | 8.658324 | | | |
| Signaling by Leptin Homo sapiens R-HSA-2586552 | 10/243 | 0.017062 | 0.313871 | | | 0 | 0 | | | 2.273857 | 9.256648 | | | |
| Signaling by NOTCH3 Homo sapiens R-HSA-1980148 | 2/11 | 0.01733 | 0.313871 | | | 0 | 0 | | | 11.65478 | 47.26361 | | | |
| Signaling by NOTCH4 Homo sapiens R-HSA-1980150 | 2/11 | 0.01733 | 0.313871 | | | 0 | 0 | | | 11.65478 | 47.26361 | | | |
| Membrane binding and targetting of GAG proteins Homo sapiens R-HSA-174490 | 2/11 | 0.01733 | 0.313871 | | | 0 | 0 | | | 11.65478 | 47.26361 | | | |
| Synthesis And Processing Of GAG. GAGPOL Polyproteins Homo sapiens R-HSA-174495 | 2/11 | 0.01733 | 0.313871 | | | 0 | 0 | | | 11.65478 | 47.26361 | | | |
| Activated NOTCH1 Transmits Signal to the Nucleus Homo sapiens R-HSA-2122948 | 3/30 | 0.018382 | 0.318935 | | | 0 | 0 | | | 5.837653 | 23.32934 | | | |
| AUF1 (hnRNP D0) binds and destabilizes mRNA Homo sapiens R-HSA-450408 | 4/54 | 0.018588 | 0.318935 | | | 0 | 0 | | | 4.209462 | 16.77566 | | | |
| Reversible hydration of carbon dioxide Homo sapiens R-HSA-1475029 | 2/12 | 0.020541 | 0.325244 | | | 0 | 0 | | | 10.48877 | 40.75249 | | | |
| Signaling by SCF-KIT Homo sapiens R-HSA-1433557 | 12/325 | 0.020609 | 0.325244 | | | 0 | 0 | | | 2.03395 | 7.895881 | | | |
| TGF-beta receptor signaling activates SMADs Homo sapiens R-HSA-2173789 | 3/32 | 0.02185 | 0.325244 | | | 0 | 0 | | | 5.434501 | 20.7792 | | | |
| Signaling by NOTCH2 Homo sapiens R-HSA-1980145 | 3/32 | 0.02185 | 0.325244 | | | 0 | 0 | | | 5.434501 | 20.7792 | | | |
| Oncogene Induced Senescence Homo sapiens R-HSA-2559585 | 3/32 | 0.02185 | 0.325244 | | | 0 | 0 | | | 5.434501 | 20.7792 | | | |
| Signaling by VEGF Homo sapiens R-HSA-194138 | 12/328 | 0.021949 | 0.325244 | | | 0 | 0 | | | 2.014327 | 7.692787 | | | |
| Regulation of mRNA stability by proteins that bind AU-rich elements Homo sapiens R-HSA-450531 | 5/86 | 0.023069 | 0.334243 | | | 0 | 0 | | | 3.251639 | 12.2563 | | | |
| Assembly Of The HIV Virion Homo sapiens R-HSA-175474 | 2/13 | 0.023977 | 0.339855 | | | 0 | 0 | | | 9.534759 | 35.57075 | | | |
| Regulation of IFNG signaling Homo sapiens R-HSA-877312 | 2/14 | 0.027631 | 0.378425 | | | 0 | 0 | | | 8.73975 | 31.36537 | | | |
| NCAM signaling for neurite out-growth Homo sapiens R-HSA-375165 | 10/266 | 0.029548 | 0.378425 | | | 0 | 0 | | | 2.067111 | 7.27984 | | | |
| Cellular Senescence Homo sapiens R-HSA-2559583 | 7/161 | 0.032818 | 0.378425 | | | 0 | 0 | | | 2.398374 | 8.194713 | | | |
| GRB2 events in EGFR signaling Homo sapiens R-HSA-179812 | 9/235 | 0.034216 | 0.378425 | | | 0 | 0 | | | 2.104868 | 7.104062 | | | |
| SHC1 events in EGFR signaling Homo sapiens R-HSA-180336 | 9/235 | 0.034216 | 0.378425 | | | 0 | 0 | | | 2.104868 | 7.104062 | | | |
| SOS-mediated signalling Homo sapiens R-HSA-112412 | 9/235 | 0.034216 | 0.378425 | | | 0 | 0 | | | 2.104868 | 7.104062 | | | |
| SHC1 events in ERBB4 signaling Homo sapiens R-HSA-1250347 | 9/235 | 0.034216 | 0.378425 | | | 0 | 0 | | | 2.104868 | 7.104062 | | | |
| RAF/MAP kinase cascade Homo sapiens R-HSA-5673001 | 9/235 | 0.034216 | 0.378425 | | | 0 | 0 | | | 2.104868 | 7.104062 | | | |
| G1 Phase Homo sapiens R-HSA-69236 | 3/38 | 0.034237 | 0.378425 | | | 0 | 0 | | | 4.501494 | 15.19001 | | | |
| Cyclin D associated events in G1 Homo sapiens R-HSA-69231 | 3/38 | 0.034237 | 0.378425 | | | 0 | 0 | | | 4.501494 | 15.19001 | | | |
| FRS-mediated FGFR2 signaling Homo sapiens R-HSA-5654700 | 9/236 | 0.03501 | 0.378425 | | | 0 | 0 | | | 2.095488 | 7.024327 | | | |
| FRS-mediated FGFR4 signaling Homo sapiens R-HSA-5654712 | 9/236 | 0.03501 | 0.378425 | | | 0 | 0 | | | 2.095488 | 7.024327 | | | |
| FRS-mediated FGFR3 signaling Homo sapiens R-HSA-5654706 | 9/236 | 0.03501 | 0.378425 | | | 0 | 0 | | | 2.095488 | 7.024327 | | | |
| FRS-mediated FGFR1 signaling Homo sapiens R-HSA-5654693 | 9/236 | 0.03501 | 0.378425 | | | 0 | 0 | | | 2.095488 | 7.024327 | | | |
| Fc epsilon receptor (FCERI) signaling Homo sapiens R-HSA-2454202 | 13/395 | 0.036958 | 0.378425 | | | 0 | 0 | | | 1.803946 | 5.94936 | | | |
| Signaling by PTK6 Homo sapiens R-HSA-8848021 | 4/67 | 0.037338 | 0.378425 | | | 0 | 0 | | | 3.338624 | 10.97653 | | | |
| ARMS-mediated activation Homo sapiens R-HSA-170984 | 9/239 | 0.037468 | 0.378425 | | | 0 | 0 | | | 2.067836 | 6.79132 | | | |
| Signalling to p38 via RIT and RIN Homo sapiens R-HSA-187706 | 9/239 | 0.037468 | 0.378425 | | | 0 | 0 | | | 2.067836 | 6.79132 | | | |
| Frs2-mediated activation Homo sapiens R-HSA-170968 | 9/240 | 0.038313 | 0.378425 | | | 0 | 0 | | | 2.058778 | 6.715661 | | | |
| MAPK1/MAPK3 signaling Homo sapiens R-HSA-5684996 | 9/241 | 0.039171 | 0.378425 | | | 0 | 0 | | | 2.049798 | 6.640981 | | | |
| Unblocking of NMDA receptor. glutamate binding and activation Homo sapiens R-HSA-438066 | 2/17 | 0.0398 | 0.378425 | | | 0 | 0 | | | 6.990731 | 22.53734 | | | |
| Prolonged ERK activation events Homo sapiens R-HSA-169893 | 9/242 | 0.040042 | 0.378425 | | | 0 | 0 | | | 2.040895 | 6.567265 | | | |
| VEGFA-VEGFR2 Pathway Homo sapiens R-HSA-4420097 | 11/320 | 0.040404 | 0.378425 | | | 0 | 0 | | | 1.883805 | 6.044797 | | | |
| Interleukin receptor SHC signaling Homo sapiens R-HSA-912526 | 9/245 | 0.042733 | 0.378425 | | | 0 | 0 | | | 2.01464 | 6.351746 | | | |
| Signalling to RAS Homo sapiens R-HSA-167044 | 9/246 | 0.043656 | 0.378425 | | | 0 | 0 | | | 2.006036 | 6.281734 | | | |
| Transcriptional regulation of pluripotent stem cells Homo sapiens R-HSA-452723 | 3/42 | 0.044126 | 0.378425 | | | 0 | 0 | | | 4.038977 | 12.60444 | | | |
| Oxygen-dependent proline hydroxylation of Hypoxia-inducible Factor Alpha Homo sapiens R-HSA-1234176 | 2/18 | 0.04423 | 0.378425 | | | 0 | 0 | | | 6.553476 | 20.43607 | | | |
| VEGFR2 mediated cell proliferation Homo sapiens R-HSA-5218921 | 9/248 | 0.045543 | 0.378425 | | | 0 | 0 | | | 1.989044 | 6.144369 | | | |
| FCERI mediated MAPK activation Homo sapiens R-HSA-2871796 | 10/289 | 0.047444 | 0.378425 | | | 0 | 0 | | | 1.894451 | 5.774678 | | | |
| Downstream signaling of activated FGFR2 Homo sapiens R-HSA-5654696 | 11/329 | 0.047627 | 0.378425 | | | 0 | 0 | | | 1.829637 | 5.570058 | | | |
| Downstream signaling of activated FGFR4 Homo sapiens R-HSA-5654716 | 11/329 | 0.047627 | 0.378425 | | | 0 | 0 | | | 1.829637 | 5.570058 | | | |
| Downstream signaling of activated FGFR3 Homo sapiens R-HSA-5654708 | 11/329 | 0.047627 | 0.378425 | | | 0 | 0 | | | 1.829637 | 5.570058 | | | |
| Signaling by ERBB4 Homo sapiens R-HSA-1236394 | 11/330 | 0.048481 | 0.378425 | | | 0 | 0 | | | 1.823807 | 5.519918 | | | |
| Regulation of TP53 Activity through Methylation Homo sapiens R-HSA-6804760 | 2/19 | 0.048833 | 0.378425 | | | 0 | 0 | | | 6.167663 | 18.62238 | | | |
| Constitutive Signaling by Ligand-Responsive EGFR Cancer Variants Homo sapiens R-HSA-1236382 | 2/19 | 0.048833 | 0.378425 | | | 0 | 0 | | | 6.167663 | 18.62238 | | | |
| Signaling by Ligand-Responsive EGFR Variants in Cancer Homo sapiens R-HSA-5637815 | 2/19 | 0.048833 | 0.378425 | | | 0 | 0 | | | 6.167663 | 18.62238 | | | |
| Signaling by EGFR in Cancer Homo sapiens R-HSA-1643713 | 2/19 | 0.048833 | 0.378425 | | | 0 | 0 | | | 6.167663 | 18.62238 | | | |
| Interleukin-2 signaling Homo sapiens R-HSA-451927 | 9/252 | 0.049478 | 0.378425 | | | 0 | 0 | | | 1.955899 | 5.879891 | | | |
| Signaling by FGFR4 Homo sapiens R-HSA-5654743 | 11/332 | 0.050219 | 0.378425 | | | 0 | 0 | | | 1.812256 | 5.42113 | | | |
| Downstream signaling of activated FGFR1 Homo sapiens R-HSA-5654687 | 11/332 | 0.050219 | 0.378425 | | | 0 | 0 | | | 1.812256 | 5.42113 | | | |
| Signalling to ERKs Homo sapiens R-HSA-187687 | 9/253 | 0.050495 | 0.378425 | | | 0 | 0 | | | 1.947782 | 5.815832 | | | |
| Signaling by FGFR3 Homo sapiens R-HSA-5654741 | 11/333 | 0.051103 | 0.378628 | | | 0 | 0 | | | 1.806535 | 5.37247 | | | |
| Signaling by ERBB2 Homo sapiens R-HSA-1227986 | 3/45 | 0.052372 | 0.383667 | | | 0 | 0 | | | 3.749904 | 11.05992 | | | |
| Regulation of gene expression in beta cells Homo sapiens R-HSA-210745 | 2/20 | 0.0536 | 0.38561 | | | 0 | 0 | | | 5.824718 | 17.04432 | | | |
| Signaling by FGFR1 Homo sapiens R-HSA-5654736 | 11/336 | 0.05382 | 0.38561 | | | 0 | 0 | | | 1.789581 | 5.229359 | | | |
| TP53 regulates transcription of additional cell cycle genes whose exact role in the p53 pathway remain uncertain Homo sapiens R-HSA-6804115 | 2/21 | 0.058524 | 0.405848 | | | 0 | 0 | | | 5.517872 | 15.66143 | | | |
| Aflatoxin activation and detoxification Homo sapiens R-HSA-5423646 | 2/21 | 0.058524 | 0.405848 | | | 0 | 0 | | | 5.517872 | 15.66143 | | | |
| Downstream signal transduction Homo sapiens R-HSA-186763 | 11/341 | 0.058559 | 0.405848 | | | 0 | 0 | | | 1.762009 | 5.000076 | | | |
| Interleukin-3. 5 and GM-CSF signaling Homo sapiens R-HSA-512988 | 9/261 | 0.059134 | 0.405848 | | | 0 | 0 | | | 1.885169 | 5.331152 | | | |
| DAP12 signaling Homo sapiens R-HSA-2424491 | 11/344 | 0.061532 | 0.414359 | | | 0 | 0 | | | 1.745864 | 4.867816 | | | |
| Transcriptional regulation of white adipocyte differentiation Homo sapiens R-HSA-381340 | 4/79 | 0.061645 | 0.414359 | | | 0 | 0 | | | 2.802724 | 7.809386 | | | |
| Axon guidance Homo sapiens R-HSA-422475 | 15/515 | 0.063552 | 0.41885 | | | 0 | 0 | | | 1.589252 | 4.379807 | | | |
| SALM protein interactions at the synapse Homo sapiens R-HSA-8849932 | 2/22 | 0.063598 | 0.41885 | | | 0 | 0 | | | 5.241711 | 14.44179 | | | |
| Signaling by Interleukins Homo sapiens R-HSA-449147 | 12/392 | 0.067994 | 0.443321 | | | 0 | 0 | | | 1.66952 | 4.48823 | | | |
| Signaling by BMP Homo sapiens R-HSA-201451 | 2/23 | 0.068814 | 0.444227 | | | 0 | 0 | | | 4.991851 | 13.35991 | | | |
| Nuclear Receptor transcription pathway Homo sapiens R-HSA-383280 | 3/51 | 0.070891 | 0.447543 | | | 0 | 0 | | | 3.280161 | 8.681303 | | | |
| Signaling by EGFR Homo sapiens R-HSA-177929 | 11/355 | 0.07327 | 0.447543 | | | 0 | 0 | | | 1.689073 | 4.414566 | | | |
| Growth hormone receptor signaling Homo sapiens R-HSA-982772 | 2/24 | 0.074165 | 0.447543 | | | 0 | 0 | | | 4.764706 | 12.39519 | | | |
| DAP12 interactions Homo sapiens R-HSA-2172127 | 11/359 | 0.077869 | 0.447543 | | | 0 | 0 | | | 1.669312 | 4.261291 | | | |
| Cytokine Signaling in Immune system Homo sapiens R-HSA-1280215 | 17/620 | 0.078441 | 0.447543 | | | 0 | 0 | | | 1.493725 | 3.802144 | | | |
| PI3K/AKT Signaling in Cancer Homo sapiens R-HSA-2219528 | 4/86 | 0.078883 | 0.447543 | | | 0 | 0 | | | 2.562549 | 6.508343 | | | |
| ATF4 activates genes Homo sapiens R-HSA-380994 | 2/25 | 0.079644 | 0.447543 | | | 0 | 0 | | | 4.557312 | 11.53084 | | | |
| Constitutive Signaling by AKT1 E17K in Cancer Homo sapiens R-HSA-5674400 | 2/25 | 0.079644 | 0.447543 | | | 0 | 0 | | | 4.557312 | 11.53084 | | | |
| Regulation of IFNA signaling Homo sapiens R-HSA-912694 | 2/25 | 0.079644 | 0.447543 | | | 0 | 0 | | | 4.557312 | 11.53084 | | | |
| Budding and maturation of HIV virion Homo sapiens R-HSA-162588 | 2/25 | 0.079644 | 0.447543 | | | 0 | 0 | | | 4.557312 | 11.53084 | | | |
| Signaling by FGFR2 Homo sapiens R-HSA-5654738 | 11/361 | 0.080236 | 0.447543 | | | 0 | 0 | | | 1.659601 | 4.18682 | | | |
| Signaling by PDGF Homo sapiens R-HSA-186797 | 11/364 | 0.083869 | 0.447543 | | | 0 | 0 | | | 1.64524 | 4.077733 | | | |
| Signaling by FGFR Homo sapiens R-HSA-190236 | 11/366 | 0.086347 | 0.447543 | | | 0 | 0 | | | 1.635802 | 4.00671 | | | |
| IRS-mediated signalling Homo sapiens R-HSA-112399 | 9/284 | 0.089015 | 0.447543 | | | 0 | 0 | | | 1.72545 | 4.173773 | | | |
| Abacavir metabolism Homo sapiens R-HSA-2161541 | 1/5 | 0.09054 | 0.447543 | | | 0 | 0 | | | 13.08 | 31.41771 | | | |
| Na+-dependent glucose transporters Homo sapiens R-HSA-428808 | 1/5 | 0.09054 | 0.447543 | | | 0 | 0 | | | 13.08 | 31.41771 | | | |
| The fatty acid cycling model Homo sapiens R-HSA-167826 | 1/5 | 0.09054 | 0.447543 | | | 0 | 0 | | | 13.08 | 31.41771 | | | |
| The proton buffering model Homo sapiens R-HSA-167827 | 1/5 | 0.09054 | 0.447543 | | | 0 | 0 | | | 13.08 | 31.41771 | | | |
| Mitochondrial Uncoupling Proteins Homo sapiens R-HSA-166187 | 1/5 | 0.09054 | 0.447543 | | | 0 | 0 | | | 13.08 | 31.41771 | | | |
| PTK6 Expression Homo sapiens R-HSA-8849473 | 1/5 | 0.09054 | 0.447543 | | | 0 | 0 | | | 13.08 | 31.41771 | | | |
| Uptake and actions of bacterial toxins Homo sapiens R-HSA-5339562 | 2/27 | 0.09096 | 0.447543 | | | 0 | 0 | | | 4.192299 | 10.05033 | | | |
| Constitutive Signaling by NOTCH1 HD+PEST Domain Mutants Homo sapiens R-HSA-2894862 | 3/57 | 0.091919 | 0.447543 | | | 0 | 0 | | | 2.914805 | 6.95718 | | | |
| Signaling by NOTCH1 in Cancer Homo sapiens R-HSA-2644603 | 3/57 | 0.091919 | 0.447543 | | | 0 | 0 | | | 2.914805 | 6.95718 | | | |
| Signaling by NOTCH1 PEST Domain Mutants in Cancer Homo sapiens R-HSA-2644602 | 3/57 | 0.091919 | 0.447543 | | | 0 | 0 | | | 2.914805 | 6.95718 | | | |
| Constitutive Signaling by NOTCH1 PEST Domain Mutants Homo sapiens R-HSA-2644606 | 3/57 | 0.091919 | 0.447543 | | | 0 | 0 | | | 2.914805 | 6.95718 | | | |
| Signaling by NOTCH1 HD+PEST Domain Mutants in Cancer Homo sapiens R-HSA-2894858 | 3/57 | 0.091919 | 0.447543 | | | 0 | 0 | | | 2.914805 | 6.95718 | | | |
| Oxidative Stress Induced Senescence Homo sapiens R-HSA-2559580 | 4/91 | 0.092509 | 0.447543 | | | 0 | 0 | | | 2.414658 | 5.747983 | | | |
| Insulin receptor signalling cascade Homo sapiens R-HSA-74751 | 9/287 | 0.093471 | 0.447543 | | | 0 | 0 | | | 1.706565 | 4.044737 | | | |
| Diseases of signal transduction Homo sapiens R-HSA-5663202 | 9/288 | 0.094985 | 0.447543 | | | 0 | 0 | | | 1.70036 | 4.002713 | | | |
| IGF1R signaling cascade Homo sapiens R-HSA-2428924 | 9/288 | 0.094985 | 0.447543 | | | 0 | 0 | | | 1.70036 | 4.002713 | | | |
| Signaling by Type 1 Insulin-like Growth Factor 1 Receptor (IGF1R) Homo sapiens R-HSA-2404192 | 9/288 | 0.094985 | 0.447543 | | | 0 | 0 | | | 1.70036 | 4.002713 | | | |
| IRS-related events triggered by IGF1R Homo sapiens R-HSA-2428928 | 9/288 | 0.094985 | 0.447543 | | | 0 | 0 | | | 1.70036 | 4.002713 | | | |
| MAPK6/MAPK4 signaling Homo sapiens R-HSA-5687128 | 4/92 | 0.09536 | 0.447543 | | | 0 | 0 | | | 2.387097 | 5.609908 | | | |
| MyD88:Mal cascade initiated on plasma membrane Homo sapiens R-HSA-166058 | 4/92 | 0.09536 | 0.447543 | | | 0 | 0 | | | 2.387097 | 5.609908 | | | |
| Toll Like Receptor TLR1:TLR2 Cascade Homo sapiens R-HSA-168179 | 4/92 | 0.09536 | 0.447543 | | | 0 | 0 | | | 2.387097 | 5.609908 | | | |
| Toll Like Receptor TLR6:TLR2 Cascade Homo sapiens R-HSA-168188 | 4/92 | 0.09536 | 0.447543 | | | 0 | 0 | | | 2.387097 | 5.609908 | | | |
| Toll Like Receptor 2 (TLR2) Cascade Homo sapiens R-HSA-181438 | 4/92 | 0.09536 | 0.447543 | | | 0 | 0 | | | 2.387097 | 5.609908 | | | |
| NGF signalling via TRKA from the plasma membrane Homo sapiens R-HSA-187037 | 11/374 | 0.096705 | 0.447543 | | | 0 | 0 | | | 1.599087 | 3.735612 | | | |
| PERK regulates gene expression Homo sapiens R-HSA-381042 | 2/28 | 0.096785 | 0.447543 | | | 0 | 0 | | | 4.030852 | 9.413117 | | | |
| Endosomal Sorting Complex Required For Transport (ESCRT) Homo sapiens R-HSA-917729 | 2/28 | 0.096785 | 0.447543 | | | 0 | 0 | | | 4.030852 | 9.413117 | | | |
| The role of GTSE1 in G2/M progression after G2 checkpoint Homo sapiens R-HSA-8852276 | 3/59 | 0.099441 | 0.456587 | | | 0 | 0 | | | 2.810417 | 6.486985 | | | |
| Negative regulation of FGFR3 signaling Homo sapiens R-HSA-5654732 | 2/29 | 0.102711 | 0.468306 | | | 0 | 0 | | | 3.881363 | 8.833332 | | | |
| Vitamins Homo sapiens R-HSA-211916 | 1/6 | 0.107642 | 0.484018 | | | 0 | 0 | | | 10.46347 | 23.32249 | | | |
| Heme degradation Homo sapiens R-HSA-189483 | 1/6 | 0.107642 | 0.484018 | | | 0 | 0 | | | 10.46347 | 23.32249 | | | |
| Negative regulation of FGFR4 signaling Homo sapiens R-HSA-5654733 | 2/31 | 0.114849 | 0.512889 | | | 0 | 0 | | | 3.613314 | 7.819695 | | | |
| Gastrin-CREB signalling pathway via PKC and MAPK Homo sapiens R-HSA-881907 | 12/432 | 0.116453 | 0.516513 | | | 0 | 0 | | | 1.507378 | 3.241267 | | | |
| Regulation of beta-cell development Homo sapiens R-HSA-186712 | 2/32 | 0.121049 | 0.529692 | | | 0 | 0 | | | 3.492692 | 7.375018 | | | |
| Negative regulation of FGFR1 signaling Homo sapiens R-HSA-5654726 | 2/32 | 0.121049 | 0.529692 | | | 0 | 0 | | | 3.492692 | 7.375018 | | | |
| Inositol transporters Homo sapiens R-HSA-429593 | 1/7 | 0.124423 | 0.53371 | | | 0 | 0 | | | 8.719111 | 18.1712 | | | |
| Vitamin D (calciferol) metabolism Homo sapiens R-HSA-196791 | 1/7 | 0.124423 | 0.53371 | | | 0 | 0 | | | 8.719111 | 18.1712 | | | |
| PTK6 promotes HIF1A stabilization Homo sapiens R-HSA-8857538 | 1/7 | 0.124423 | 0.53371 | | | 0 | 0 | | | 8.719111 | 18.1712 | | | |
| Semaphorin interactions Homo sapiens R-HSA-373755 | 3/67 | 0.131802 | 0.546787 | | | 0 | 0 | | | 2.45811 | 4.981257 | | | |
| Signaling by Insulin receptor Homo sapiens R-HSA-74752 | 9/311 | 0.133679 | 0.546787 | | | 0 | 0 | | | 1.568995 | 3.157307 | | | |
| Negative regulation of FGFR2 signaling Homo sapiens R-HSA-5654727 | 2/34 | 0.133685 | 0.546787 | | | 0 | 0 | | | 3.274064 | 6.58831 | | | |
| Interferon alpha/beta signaling Homo sapiens R-HSA-909733 | 3/68 | 0.13608 | 0.546787 | | | 0 | 0 | | | 2.420169 | 4.827061 | | | |
| Lysosome Vesicle Biogenesis Homo sapiens R-HSA-432720 | 2/35 | 0.140109 | 0.546787 | | | 0 | 0 | | | 3.174688 | 6.239313 | | | |
| Fanconi Anemia Pathway Homo sapiens R-HSA-6783310 | 2/35 | 0.140109 | 0.546787 | | | 0 | 0 | | | 3.174688 | 6.239313 | | | |
| VEGF ligand-receptor interactions Homo sapiens R-HSA-194313 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| VEGF binds to VEGFR leading to receptor dimerization Homo sapiens R-HSA-195399 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| Erythrocytes take up oxygen and release carbon dioxide Homo sapiens R-HSA-1247673 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| Sema4D mediated inhibition of cell attachment and migration Homo sapiens R-HSA-416550 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| Terminal pathway of complement Homo sapiens R-HSA-166665 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| Release of Hh-Np from the secreting cell Homo sapiens R-HSA-5362798 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| Ligand-receptor interactions Homo sapiens R-HSA-5632681 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| WNT mediated activation of DVL Homo sapiens R-HSA-201688 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| BH3-only proteins associate with and inactivate anti-apoptotic BCL-2 members Homo sapiens R-HSA-111453 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| Downregulation of ERBB4 signaling Homo sapiens R-HSA-1253288 | 1/8 | 0.14089 | 0.546787 | | | 0 | 0 | | | 7.473143 | 14.64569 | | | |
| NCAM1 interactions Homo sapiens R-HSA-419037 | 2/37 | 0.15315 | 0.572245 | | | 0 | 0 | | | 2.992972 | 5.615825 | | | |
| Signaling by NOTCH1 Homo sapiens R-HSA-1980143 | 3/72 | 0.15365 | 0.572245 | | | 0 | 0 | | | 2.279403 | 4.269494 | | | |
| Downstream signaling events of B Cell Receptor (BCR) Homo sapiens R-HSA-1168372 | 6/192 | 0.154428 | 0.572245 | | | 0 | 0 | | | 1.694682 | 3.16571 | | | |
| CHL1 interactions Homo sapiens R-HSA-447041 | 1/9 | 0.157048 | 0.572245 | | | 0 | 0 | | | 6.538667 | 12.10442 | | | |
| Ca2+ activated K+ channels Homo sapiens R-HSA-1296052 | 1/9 | 0.157048 | 0.572245 | | | 0 | 0 | | | 6.538667 | 12.10442 | | | |
| Prostanoid ligand receptors Homo sapiens R-HSA-391908 | 1/9 | 0.157048 | 0.572245 | | | 0 | 0 | | | 6.538667 | 12.10442 | | | |
| AKT phosphorylates targets in the nucleus Homo sapiens R-HSA-198693 | 1/9 | 0.157048 | 0.572245 | | | 0 | 0 | | | 6.538667 | 12.10442 | | | |
| Highly calcium permeable nicotinic acetylcholine receptors Homo sapiens R-HSA-629597 | 1/9 | 0.157048 | 0.572245 | | | 0 | 0 | | | 6.538667 | 12.10442 | | | |
| PTK6 Regulates RTKs and Their Effectors AKT1 and DOK1 Homo sapiens R-HSA-8849469 | 1/9 | 0.157048 | 0.572245 | | | 0 | 0 | | | 6.538667 | 12.10442 | | | |
| EGFR Transactivation by Gastrin Homo sapiens R-HSA-2179392 | 1/9 | 0.157048 | 0.572245 | | | 0 | 0 | | | 6.538667 | 12.10442 | | | |
| Activated TLR4 signalling Homo sapiens R-HSA-166054 | 4/112 | 0.160306 | 0.572245 | | | 0 | 0 | | | 1.943051 | 3.557081 | | | |
| Interferon Signaling Homo sapiens R-HSA-913531 | 6/196 | 0.165023 | 0.572245 | | | 0 | 0 | | | 1.658663 | 2.988368 | | | |
| Collagen degradation Homo sapiens R-HSA-1442490 | 2/39 | 0.166414 | 0.572245 | | | 0 | 0 | | | 2.8309 | 5.076589 | | | |
| Activation of NMDA receptor upon glutamate binding and postsynaptic events Homo sapiens R-HSA-442755 | 2/39 | 0.166414 | 0.572245 | | | 0 | 0 | | | 2.8309 | 5.076589 | | | |
| Abacavir transport and metabolism Homo sapiens R-HSA-2161522 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| eNOS activation Homo sapiens R-HSA-203615 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| Tetrahydrobiopterin (BH4) synthesis. recycling. salvage and regulation Homo sapiens R-HSA-1474151 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| ATF6-alpha activates chaperone genes Homo sapiens R-HSA-381183 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| Regulation of signaling by NODAL Homo sapiens R-HSA-1433617 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| SLBP independent Processing of Histone Pre-mRNAs Homo sapiens R-HSA-111367 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| IRAK2 mediated activation of TAK1 complex upon TLR7/8 or 9 stimulation Homo sapiens R-HSA-975163 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| IRAK2 mediated activation of TAK1 complex Homo sapiens R-HSA-937042 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| Diseases of carbohydrate metabolism Homo sapiens R-HSA-5663084 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| Myoclonic epilepsy of Lafora Homo sapiens R-HSA-3785653 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| Glycogen storage diseases Homo sapiens R-HSA-3229121 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| Signaling by FGFR3 fusions in cancer Homo sapiens R-HSA-8853334 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| Activation of the AP-1 family of transcription factors Homo sapiens R-HSA-450341 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| IRAK1 recruits IKK complex Homo sapiens R-HSA-937039 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| IRAK1 recruits IKK complex upon TLR7/8 or 9 stimulation Homo sapiens R-HSA-975144 | 1/10 | 0.172902 | 0.572245 | | | 0 | 0 | | | 5.811852 | 10.19997 | | | |
| Glucose metabolism Homo sapiens R-HSA-70326 | 3/79 | 0.185945 | 0.598327 | | | 0 | 0 | | | 2.068717 | 3.480208 | | | |
| EPHB-mediated forward signaling Homo sapiens R-HSA-3928662 | 2/42 | 0.186654 | 0.598327 | | | 0 | 0 | | | 2.618182 | 4.394618 | | | |
| SLBP Dependent Processing of Replication-Dependent Histone Pre-mRNAs Homo sapiens R-HSA-77588 | 1/11 | 0.188459 | 0.598327 | | | 0 | 0 | | | 5.2304 | 8.728872 | | | |
| Highly calcium permeable postsynaptic nicotinic acetylcholine receptors Homo sapiens R-HSA-629594 | 1/11 | 0.188459 | 0.598327 | | | 0 | 0 | | | 5.2304 | 8.728872 | | | |
| Response to metal ions Homo sapiens R-HSA-5660526 | 1/11 | 0.188459 | 0.598327 | | | 0 | 0 | | | 5.2304 | 8.728872 | | | |
| Metallothioneins bind metals Homo sapiens R-HSA-5661231 | 1/11 | 0.188459 | 0.598327 | | | 0 | 0 | | | 5.2304 | 8.728872 | | | |
| Interleukin-6 signaling Homo sapiens R-HSA-1059683 | 1/11 | 0.188459 | 0.598327 | | | 0 | 0 | | | 5.2304 | 8.728872 | | | |
| Signaling by FGFR4 in disease Homo sapiens R-HSA-5655291 | 1/11 | 0.188459 | 0.598327 | | | 0 | 0 | | | 5.2304 | 8.728872 | | | |
| TP53 Regulates Transcription of Cell Death Genes Homo sapiens R-HSA-5633008 | 2/43 | 0.193476 | 0.598327 | | | 0 | 0 | | | 2.554193 | 4.195522 | | | |
| PI-3K cascade:FGFR1 Homo sapiens R-HSA-5654689 | 4/122 | 0.197525 | 0.598327 | | | 0 | 0 | | | 1.777474 | 2.882869 | | | |
| PI-3K cascade:FGFR3 Homo sapiens R-HSA-5654710 | 4/122 | 0.197525 | 0.598327 | | | 0 | 0 | | | 1.777474 | 2.882869 | | | |
| PI3K events in ERBB4 signaling Homo sapiens R-HSA-1250342 | 4/122 | 0.197525 | 0.598327 | | | 0 | 0 | | | 1.777474 | 2.882869 | | | |
| PIP3 activates AKT signaling Homo sapiens R-HSA-1257604 | 4/122 | 0.197525 | 0.598327 | | | 0 | 0 | | | 1.777474 | 2.882869 | | | |
| PI-3K cascade:FGFR4 Homo sapiens R-HSA-5654720 | 4/122 | 0.197525 | 0.598327 | | | 0 | 0 | | | 1.777474 | 2.882869 | | | |
| PI-3K cascade:FGFR2 Homo sapiens R-HSA-5654695 | 4/122 | 0.197525 | 0.598327 | | | 0 | 0 | | | 1.777474 | 2.882869 | | | |
| Toll Like Receptor 4 (TLR4) Cascade Homo sapiens R-HSA-166016 | 4/122 | 0.197525 | 0.598327 | | | 0 | 0 | | | 1.777474 | 2.882869 | | | |
| Toll Like Receptor 10 (TLR10) Cascade Homo sapiens R-HSA-168142 | 3/82 | 0.200292 | 0.598327 | | | 0 | 0 | | | 1.989853 | 3.199638 | | | |
| Toll Like Receptor 5 (TLR5) Cascade Homo sapiens R-HSA-168176 | 3/82 | 0.200292 | 0.598327 | | | 0 | 0 | | | 1.989853 | 3.199638 | | | |
| MyD88 cascade initiated on plasma membrane Homo sapiens R-HSA-975871 | 3/82 | 0.200292 | 0.598327 | | | 0 | 0 | | | 1.989853 | 3.199638 | | | |
| Interleukin-1 signaling Homo sapiens R-HSA-446652 | 2/44 | 0.20033 | 0.598327 | | | 0 | 0 | | | 2.493252 | 4.008625 | | | |
| Erythrocytes take up carbon dioxide and release oxygen Homo sapiens R-HSA-1237044 | 1/12 | 0.203725 | 0.598327 | | | 0 | 0 | | | 4.754667 | 7.564606 | | | |
| O2/CO2 exchange in erythrocytes Homo sapiens R-HSA-1480926 | 1/12 | 0.203725 | 0.598327 | | | 0 | 0 | | | 4.754667 | 7.564606 | | | |
| ATF6-alpha activates chaperones Homo sapiens R-HSA-381033 | 1/12 | 0.203725 | 0.598327 | | | 0 | 0 | | | 4.754667 | 7.564606 | | | |
| The NLRP3 inflammasome Homo sapiens R-HSA-844456 | 1/12 | 0.203725 | 0.598327 | | | 0 | 0 | | | 4.754667 | 7.564606 | | | |
| Presynaptic nicotinic acetylcholine receptors Homo sapiens R-HSA-622323 | 1/12 | 0.203725 | 0.598327 | | | 0 | 0 | | | 4.754667 | 7.564606 | | | |
| TRAF6 mediated induction of NFkB and MAP kinases upon TLR7/8 or 9 activation Homo sapiens R-HSA-975138 | 3/83 | 0.205132 | 0.599759 | | | 0 | 0 | | | 1.964879 | 3.112565 | | | |
| GAB1 signalosome Homo sapiens R-HSA-180292 | 4/125 | 0.209171 | 0.601666 | | | 0 | 0 | | | 1.733138 | 2.711673 | | | |
| PI3K/AKT activation Homo sapiens R-HSA-198203 | 4/125 | 0.209171 | 0.601666 | | | 0 | 0 | | | 1.733138 | 2.711673 | | | |
| TP53 Regulates Metabolic Genes Homo sapiens R-HSA-5628897 | 3/84 | 0.209999 | 0.601666 | | | 0 | 0 | | | 1.940522 | 3.028482 | | | |
| MyD88 dependent cascade initiated on endosome Homo sapiens R-HSA-975155 | 3/85 | 0.214891 | 0.601666 | | | 0 | 0 | | | 1.916759 | 2.947257 | | | |
| Toll Like Receptor 7/8 (TLR7/8) Cascade Homo sapiens R-HSA-168181 | 3/85 | 0.214891 | 0.601666 | | | 0 | 0 | | | 1.916759 | 2.947257 | | | |
| Facilitative Na+-independent glucose transporters Homo sapiens R-HSA-428790 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| Synthesis. secretion. and inactivation of Glucose-dependent Insulinotropic Polypeptide (GIP) Homo sapiens R-HSA-400511 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| TP53 Regulates Transcription of Genes Involved in G1 Cell Cycle Arrest Homo sapiens R-HSA-6804116 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| Signaling by Activin Homo sapiens R-HSA-1502540 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| AKT phosphorylates targets in the cytosol Homo sapiens R-HSA-198323 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| p75NTR recruits signalling complexes Homo sapiens R-HSA-209543 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| NF-kB is activated and signals survival Homo sapiens R-HSA-209560 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| ERBB2 Activates PTK6 Signaling Homo sapiens R-HSA-8847993 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| Downregulation of ERBB2:ERBB3 signaling Homo sapiens R-HSA-1358803 | 1/13 | 0.218704 | 0.601666 | | | 0 | 0 | | | 4.358222 | 6.624662 | | | |
| Regulation of PLK1 Activity at G2/M Transition Homo sapiens R-HSA-2565942 | 3/87 | 0.224746 | 0.607204 | | | 0 | 0 | | | 1.870931 | 2.7929 | | | |
| Hexose transport Homo sapiens R-HSA-189200 | 2/48 | 0.227991 | 0.607204 | | | 0 | 0 | | | 2.275982 | 3.364927 | | | |
| Signalling by NGF Homo sapiens R-HSA-166520 | 11/450 | 0.228658 | 0.607204 | | | 0 | 0 | | | 1.317034 | 1.943321 | | | |
| Toll Like Receptor 9 (TLR9) Cascade Homo sapiens R-HSA-168138 | 3/88 | 0.229706 | 0.607204 | | | 0 | 0 | | | 1.848825 | 2.719541 | | | |
| SEMA3A-Plexin repulsion signaling by inhibiting Integrin adhesion Homo sapiens R-HSA-399955 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| Early Phase of HIV Life Cycle Homo sapiens R-HSA-162594 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| Regulation of TP53 Activity through Association with Co-factors Homo sapiens R-HSA-6804759 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| TP53 regulates transcription of several additional cell death genes whose specific roles in p53-dependent apoptosis remain uncertain Homo sapiens R-HSA-6803205 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| Glutathione synthesis and recycling Homo sapiens R-HSA-174403 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| Regulation of pyruvate dehydrogenase (PDH) complex Homo sapiens R-HSA-204174 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| Activation of Nicotinic Acetylcholine Receptors Homo sapiens R-HSA-629602 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| Postsynaptic nicotinic acetylcholine receptors Homo sapiens R-HSA-622327 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| Acetylcholine Binding And Downstream Events Homo sapiens R-HSA-181431 | 1/14 | 0.233402 | 0.607204 | | | 0 | 0 | | | 4.022769 | 5.853109 | | | |
| Activation of anterior HOX genes in hindbrain development during early embryogenesis Homo sapiens R-HSA-5617472 | 3/89 | 0.234686 | 0.607204 | | | 0 | 0 | | | 1.827234 | 2.648585 | | | |
| Activation of HOX genes during differentiation Homo sapiens R-HSA-5619507 | 3/89 | 0.234686 | 0.607204 | | | 0 | 0 | | | 1.827234 | 2.648585 | | | |
| CREB phosphorylation through the activation of CaMKII Homo sapiens R-HSA-442729 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| Eicosanoid ligand-binding receptors Homo sapiens R-HSA-391903 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| Regulation of innate immune responses to cytosolic DNA Homo sapiens R-HSA-3134975 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| Association of licensing factors with the pre-replicative complex Homo sapiens R-HSA-69298 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| NRIF signals cell death from the nucleus Homo sapiens R-HSA-205043 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| Glycogen synthesis Homo sapiens R-HSA-3322077 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| Glycogen breakdown (glycogenolysis) Homo sapiens R-HSA-70221 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| ERBB2 Regulates Cell Motility Homo sapiens R-HSA-6785631 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| Signaling by EGFRvIII in Cancer Homo sapiens R-HSA-5637812 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| Constitutive Signaling by EGFRvIII Homo sapiens R-HSA-5637810 | 1/15 | 0.247824 | 0.616722 | | | 0 | 0 | | | 3.735238 | 5.210798 | | | |
| Metabolism of fat-soluble vitamins Homo sapiens R-HSA-6806667 | 2/51 | 0.248904 | 0.617054 | | | 0 | 0 | | | 2.136309 | 2.970942 | | | |
| Mitotic G1-G1/S phases Homo sapiens R-HSA-453279 | 4/136 | 0.253366 | 0.618869 | | | 0 | 0 | | | 1.587814 | 2.179942 | | | |
| Interferon gamma signaling Homo sapiens R-HSA-877300 | 3/93 | 0.254787 | 0.618869 | | | 0 | 0 | | | 1.745666 | 2.386898 | | | |
| Innate Immune System Homo sapiens R-HSA-168249 | 18/807 | 0.260976 | 0.618869 | | | 0 | 0 | | | 1.200268 | 1.612354 | | | |
| Regulation of KIT signaling Homo sapiens R-HSA-1433559 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| Sema3A PAK dependent Axon repulsion Homo sapiens R-HSA-399954 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| TGF-beta receptor signaling in EMT (epithelial to mesenchymal transition) Homo sapiens R-HSA-2173791 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| Translesion synthesis by REV1 Homo sapiens R-HSA-110312 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| p75NTR signals via NF-kB Homo sapiens R-HSA-193639 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| TRAF6 mediated induction of TAK1 complex Homo sapiens R-HSA-937072 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| Spry regulation of FGF signaling Homo sapiens R-HSA-1295596 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| PI3K events in ERBB2 signaling Homo sapiens R-HSA-1963642 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| GRB2 events in ERBB2 signaling Homo sapiens R-HSA-1963640 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| MAP3K8 (TPL2)-dependent MAPK1/3 activation Homo sapiens R-HSA-5684264 | 1/16 | 0.261975 | 0.618869 | | | 0 | 0 | | | 3.486044 | 4.669576 | | | |
| EPH-Ephrin signaling Homo sapiens R-HSA-2682334 | 3/95 | 0.264928 | 0.620212 | | | 0 | 0 | | | 1.707542 | 2.268126 | | | |
| Golgi Associated Vesicle Biogenesis Homo sapiens R-HSA-432722 | 2/54 | 0.269872 | 0.620212 | | | 0 | 0 | | | 2.012752 | 2.636315 | | | |
| Toll-Like Receptors Cascades Homo sapiens R-HSA-168898 | 4/140 | 0.269901 | 0.620212 | | | 0 | 0 | | | 1.540797 | 2.017981 | | | |
| Visual phototransduction Homo sapiens R-HSA-2187338 | 3/97 | 0.275116 | 0.620212 | | | 0 | 0 | | | 1.67104 | 2.15658 | | | |
| Signaling by the B Cell Receptor (BCR) Homo sapiens R-HSA-983705 | 6/233 | 0.275147 | 0.620212 | | | 0 | 0 | | | 1.385665 | 1.78813 | | | |
| Ras activation uopn Ca2+ infux through NMDA receptor Homo sapiens R-HSA-442982 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| TNF receptor superfamily (TNFSF) members mediating non-canonical NF-kB pathway Homo sapiens R-HSA-5676594 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| Trafficking of GluR2-containing AMPA receptors Homo sapiens R-HSA-416993 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| Tristetraprolin (TTP. ZFP36) binds and destabilizes mRNA Homo sapiens R-HSA-450513 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| Inflammasomes Homo sapiens R-HSA-622312 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| Formation of Senescence-Associated Heterochromatin Foci (SAHF) Homo sapiens R-HSA-2559584 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| Metabolism of porphyrins Homo sapiens R-HSA-189445 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| Translesion synthesis by POLK Homo sapiens R-HSA-5655862 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| Translesion synthesis by POLI Homo sapiens R-HSA-5656121 | 1/17 | 0.275861 | 0.620212 | | | 0 | 0 | | | 3.268 | 4.208719 | | | |
| Hh mutants that don't undergo autocatalytic processing are degraded by ERAD Homo sapiens R-HSA-5362768 | 2/55 | 0.276862 | 0.620323 | | | 0 | 0 | | | 1.974675 | 2.535948 | | | |
| Neurotransmitter Receptor Binding And Downstream Transmission In The Postsynaptic Cell Homo sapiens R-HSA-112314 | 4/142 | 0.27824 | 0.621276 | | | 0 | 0 | | | 1.518311 | 1.942331 | | | |
| Chemokine receptors bind chemokines Homo sapiens R-HSA-380108 | 2/56 | 0.283848 | 0.631634 | | | 0 | 0 | | | 1.938008 | 2.440567 | | | |
| Activation of SMO Homo sapiens R-HSA-5635838 | 1/18 | 0.289487 | 0.635506 | | | 0 | 0 | | | 3.075608 | 3.812667 | | | |
| TP53 Regulates Transcription of Genes Involved in G2 Cell Cycle Arrest Homo sapiens R-HSA-6804114 | 1/18 | 0.289487 | 0.635506 | | | 0 | 0 | | | 3.075608 | 3.812667 | | | |
| SHC1 events in ERBB2 signaling Homo sapiens R-HSA-1250196 | 1/18 | 0.289487 | 0.635506 | | | 0 | 0 | | | 3.075608 | 3.812667 | | | |
| Activation of IRF3/IRF7 mediated by TBK1/IKK epsilon Homo sapiens R-HSA-936964 | 1/18 | 0.289487 | 0.635506 | | | 0 | 0 | | | 3.075608 | 3.812667 | | | |
| Hh mutants abrogate ligand secretion Homo sapiens R-HSA-5387390 | 2/57 | 0.290827 | 0.636306 | | | 0 | 0 | | | 1.902674 | 2.349854 | | | |
| Recruitment and ATM-mediated phosphorylation of repair and signaling proteins at DNA double strand breaks Homo sapiens R-HSA-5693565 | 2/58 | 0.297797 | 0.643048 | | | 0 | 0 | | | 1.868602 | 2.263516 | | | |
| GABA synthesis. release. reuptake and degradation Homo sapiens R-HSA-888590 | 1/19 | 0.302856 | 0.643048 | | | 0 | 0 | | | 2.904593 | 3.469528 | | | |
| Other semaphorin interactions Homo sapiens R-HSA-416700 | 1/19 | 0.302856 | 0.643048 | | | 0 | 0 | | | 2.904593 | 3.469528 | | | |
| Ephrin signaling Homo sapiens R-HSA-3928664 | 1/19 | 0.302856 | 0.643048 | | | 0 | 0 | | | 2.904593 | 3.469528 | | | |
| TP53 Regulates Transcription of Genes Involved in Cytochrome C Release Homo sapiens R-HSA-6803204 | 1/19 | 0.302856 | 0.643048 | | | 0 | 0 | | | 2.904593 | 3.469528 | | | |
| Signaling by NODAL Homo sapiens R-HSA-1181150 | 1/19 | 0.302856 | 0.643048 | | | 0 | 0 | | | 2.904593 | 3.469528 | | | |
| Phase 4 - resting membrane potential Homo sapiens R-HSA-5576886 | 1/19 | 0.302856 | 0.643048 | | | 0 | 0 | | | 2.904593 | 3.469528 | | | |
| Translesion Synthesis by POLH Homo sapiens R-HSA-110320 | 1/19 | 0.302856 | 0.643048 | | | 0 | 0 | | | 2.904593 | 3.469528 | | | |
| DNA Damage/Telomere Stress Induced Senescence Homo sapiens R-HSA-2559586 | 2/59 | 0.304757 | 0.643048 | | | 0 | 0 | | | 1.835726 | 2.181282 | | | |
| DNA Double Strand Break Response Homo sapiens R-HSA-5693606 | 2/59 | 0.304757 | 0.643048 | | | 0 | 0 | | | 1.835726 | 2.181282 | | | |
| SCF(Skp2)-mediated degradation of p27/p21 Homo sapiens R-HSA-187577 | 2/59 | 0.304757 | 0.643048 | | | 0 | 0 | | | 1.835726 | 2.181282 | | | |
| MAP kinase activation in TLR cascade Homo sapiens R-HSA-450294 | 2/60 | 0.311704 | 0.655585 | | | 0 | 0 | | | 1.803983 | 2.102903 | | | |
| eNOS activation and regulation Homo sapiens R-HSA-203765 | 1/20 | 0.315975 | 0.658619 | | | 0 | 0 | | | 2.751579 | 3.170073 | | | |
| Metabolism of nitric oxide Homo sapiens R-HSA-202131 | 1/20 | 0.315975 | 0.658619 | | | 0 | 0 | | | 2.751579 | 3.170073 | | | |
| DNA Replication Homo sapiens R-HSA-69306 | 3/105 | 0.316178 | 0.658619 | | | 0 | 0 | | | 1.539347 | 1.772484 | | | |
| Constitutive Signaling by Aberrant PI3K in Cancer Homo sapiens R-HSA-2219530 | 2/61 | 0.318637 | 0.661628 | | | 0 | 0 | | | 1.773316 | 2.028148 | | | |
| Biological oxidations Homo sapiens R-HSA-211859 | 5/199 | 0.319989 | 0.662326 | | | 0 | 0 | | | 1.349793 | 1.538047 | | | |
| Degradation of the extracellular matrix Homo sapiens R-HSA-1474228 | 3/106 | 0.321328 | 0.662992 | | | 0 | 0 | | | 1.524324 | 1.730556 | | | |
| HATs acetylate histones Homo sapiens R-HSA-3214847 | 3/107 | 0.326478 | 0.671075 | | | 0 | 0 | | | 1.50959 | 1.689822 | | | |
| Regulation of FZD by ubiquitination Homo sapiens R-HSA-4641263 | 1/21 | 0.328847 | 0.671075 | | | 0 | 0 | | | 2.613867 | 2.907041 | | | |
| Collagen biosynthesis and modifying enzymes Homo sapiens R-HSA-1650814 | 2/63 | 0.33245 | 0.671075 | | | 0 | 0 | | | 1.715 | 1.888672 | | | |
| Circadian Clock Homo sapiens R-HSA-400253 | 2/63 | 0.33245 | 0.671075 | | | 0 | 0 | | | 1.715 | 1.888672 | | | |
| p53-Dependent G1/S DNA damage checkpoint Homo sapiens R-HSA-69580 | 2/63 | 0.33245 | 0.671075 | | | 0 | 0 | | | 1.715 | 1.888672 | | | |
| p53-Dependent G1 DNA Damage Response Homo sapiens R-HSA-69563 | 2/63 | 0.33245 | 0.671075 | | | 0 | 0 | | | 1.715 | 1.888672 | | | |
| Asymmetric localization of PCP proteins Homo sapiens R-HSA-4608870 | 2/63 | 0.33245 | 0.671075 | | | 0 | 0 | | | 1.715 | 1.888672 | | | |
| Hedgehog ligand biogenesis Homo sapiens R-HSA-5358346 | 2/64 | 0.339327 | 0.678792 | | | 0 | 0 | | | 1.687252 | 1.823569 | | | |
| Pink/Parkin Mediated Mitophagy Homo sapiens R-HSA-5205685 | 1/22 | 0.341478 | 0.678792 | | | 0 | 0 | | | 2.48927 | 2.674648 | | | |
| Mitophagy Homo sapiens R-HSA-5205647 | 1/22 | 0.341478 | 0.678792 | | | 0 | 0 | | | 2.48927 | 2.674648 | | | |
| Signaling by FGFR3 point mutants in cancer Homo sapiens R-HSA-8853338 | 1/22 | 0.341478 | 0.678792 | | | 0 | 0 | | | 2.48927 | 2.674648 | | | |
| Signaling by FGFR3 in disease Homo sapiens R-HSA-5655332 | 1/22 | 0.341478 | 0.678792 | | | 0 | 0 | | | 2.48927 | 2.674648 | | | |
| G1/S DNA Damage Checkpoints Homo sapiens R-HSA-69615 | 2/65 | 0.346182 | 0.680604 | | | 0 | 0 | | | 1.660385 | 1.761323 | | | |
| G1/S Transition Homo sapiens R-HSA-69206 | 3/112 | 0.35221 | 0.680604 | | | 0 | 0 | | | 1.439973 | 1.502654 | | | |
| Activation of NF-kappaB in B cells Homo sapiens R-HSA-1169091 | 2/66 | 0.353013 | 0.680604 | | | 0 | 0 | | | 1.634358 | 1.701775 | | | |
| The canonical retinoid cycle in rods (twilight vision) Homo sapiens R-HSA-2453902 | 1/23 | 0.353872 | 0.680604 | | | 0 | 0 | | | 2.376 | 2.468235 | | | |
| Incretin synthesis. secretion. and inactivation Homo sapiens R-HSA-400508 | 1/23 | 0.353872 | 0.680604 | | | 0 | 0 | | | 2.376 | 2.468235 | | | |
| Deadenylation of mRNA Homo sapiens R-HSA-429947 | 1/23 | 0.353872 | 0.680604 | | | 0 | 0 | | | 2.376 | 2.468235 | | | |
| Branched-chain amino acid catabolism Homo sapiens R-HSA-70895 | 1/23 | 0.353872 | 0.680604 | | | 0 | 0 | | | 2.376 | 2.468235 | | | |
| Gap-filling DNA repair synthesis and ligation in GG-NER Homo sapiens R-HSA-5696397 | 1/23 | 0.353872 | 0.680604 | | | 0 | 0 | | | 2.376 | 2.468235 | | | |
| Downregulation of SMAD2/3:SMAD4 transcriptional activity Homo sapiens R-HSA-2173795 | 1/23 | 0.353872 | 0.680604 | | | 0 | 0 | | | 2.376 | 2.468235 | | | |
| SHC-mediated cascade:FGFR4 Homo sapiens R-HSA-5654719 | 1/23 | 0.353872 | 0.680604 | | | 0 | 0 | | | 2.376 | 2.468235 | | | |
| APC/C:Cdc20 mediated degradation of Cyclin B Homo sapiens R-HSA-174048 | 1/23 | 0.353872 | 0.680604 | | | 0 | 0 | | | 2.376 | 2.468235 | | | |
| PPARA activates gene expression Homo sapiens R-HSA-1989781 | 3/113 | 0.357345 | 0.684554 | | | 0 | 0 | | | 1.42681 | 1.468263 | | | |
| Role of LAT2/NTAL/LAB on calcium mobilization Homo sapiens R-HSA-2730905 | 4/162 | 0.363096 | 0.684554 | | | 0 | 0 | | | 1.324758 | 1.342095 | | | |
| Transmission across Chemical Synapses Homo sapiens R-HSA-112315 | 5/211 | 0.364552 | 0.684554 | | | 0 | 0 | | | 1.270379 | 1.281922 | | | |
| Sema4D induced cell migration and growth-cone collapse Homo sapiens R-HSA-416572 | 1/24 | 0.366033 | 0.684554 | | | 0 | 0 | | | 2.27258 | 2.284013 | | | |
| TNFs bind their physiological receptors Homo sapiens R-HSA-5669034 | 1/24 | 0.366033 | 0.684554 | | | 0 | 0 | | | 2.27258 | 2.284013 | | | |
| Post-Elongation Processing of Intronless pre-mRNA Homo sapiens R-HSA-112297 | 1/24 | 0.366033 | 0.684554 | | | 0 | 0 | | | 2.27258 | 2.284013 | | | |
| Processing of Capped Intronless Pre-mRNA Homo sapiens R-HSA-75067 | 1/24 | 0.366033 | 0.684554 | | | 0 | 0 | | | 2.27258 | 2.284013 | | | |
| IKK complex recruitment mediated by RIP1 Homo sapiens R-HSA-937041 | 1/24 | 0.366033 | 0.684554 | | | 0 | 0 | | | 2.27258 | 2.284013 | | | |
| Amyloid fiber formation Homo sapiens R-HSA-977225 | 2/68 | 0.3666 | 0.684554 | | | 0 | 0 | | | 1.58467 | 1.590192 | | | |
| Cyclin E associated events during G1/S transition Homo sapiens R-HSA-69202 | 2/68 | 0.3666 | 0.684554 | | | 0 | 0 | | | 1.58467 | 1.590192 | | | |
| Regulation of lipid metabolism by Peroxisome proliferator-activated receptor alpha (PPARalpha) Homo sapiens R-HSA-400206 | 3/116 | 0.372715 | 0.684554 | | | 0 | 0 | | | 1.388716 | 1.37058 | | | |
| Cyclin A:Cdk2-associated events at S phase entry Homo sapiens R-HSA-69656 | 2/69 | 0.373352 | 0.684554 | | | 0 | 0 | | | 1.560939 | 1.53789 | | | |
| Loss of Nlp from mitotic centrosomes Homo sapiens R-HSA-380259 | 2/69 | 0.373352 | 0.684554 | | | 0 | 0 | | | 1.560939 | 1.53789 | | | |
| Loss of proteins required for interphase microtubule organization?from the centrosome Homo sapiens R-HSA-380284 | 2/69 | 0.373352 | 0.684554 | | | 0 | 0 | | | 1.560939 | 1.53789 | | | |
| Activation of G protein gated Potassium channels Homo sapiens R-HSA-1296041 | 1/25 | 0.377966 | 0.684554 | | | 0 | 0 | | | 2.177778 | 2.11887 | | | |
| Inhibition of voltage gated Ca2+ channels via Gbeta/gamma subunits Homo sapiens R-HSA-997272 | 1/25 | 0.377966 | 0.684554 | | | 0 | 0 | | | 2.177778 | 2.11887 | | | |
| G protein gated Potassium channels Homo sapiens R-HSA-1296059 | 1/25 | 0.377966 | 0.684554 | | | 0 | 0 | | | 2.177778 | 2.11887 | | | |
| HDMs demethylate histones Homo sapiens R-HSA-3214842 | 1/25 | 0.377966 | 0.684554 | | | 0 | 0 | | | 2.177778 | 2.11887 | | | |
| APC-Cdc20 mediated degradation of Nek2A Homo sapiens R-HSA-179409 | 1/25 | 0.377966 | 0.684554 | | | 0 | 0 | | | 2.177778 | 2.11887 | | | |
| trans-Golgi Network Vesicle Budding Homo sapiens R-HSA-199992 | 2/70 | 0.380075 | 0.684554 | | | 0 | 0 | | | 1.537905 | 1.487751 | | | |
| Clathrin derived vesicle budding Homo sapiens R-HSA-421837 | 2/70 | 0.380075 | 0.684554 | | | 0 | 0 | | | 1.537905 | 1.487751 | | | |
| Switching of origins to a post-replicative state Homo sapiens R-HSA-69052 | 2/70 | 0.380075 | 0.684554 | | | 0 | 0 | | | 1.537905 | 1.487751 | | | |
| Orc1 removal from chromatin Homo sapiens R-HSA-68949 | 2/70 | 0.380075 | 0.684554 | | | 0 | 0 | | | 1.537905 | 1.487751 | | | |
| SHC-mediated cascade:FGFR2 Homo sapiens R-HSA-5654699 | 1/26 | 0.389675 | 0.697051 | | | 0 | 0 | | | 2.09056 | 1.970232 | | | |
| ISG15 antiviral mechanism Homo sapiens R-HSA-1169408 | 2/72 | 0.393427 | 0.697051 | | | 0 | 0 | | | 1.493812 | 1.393516 | | | |
| Antiviral mechanism by IFN-stimulated genes Homo sapiens R-HSA-1169410 | 2/72 | 0.393427 | 0.697051 | | | 0 | 0 | | | 1.493812 | 1.393516 | | | |
| Removal of licensing factors from origins Homo sapiens R-HSA-69300 | 2/72 | 0.393427 | 0.697051 | | | 0 | 0 | | | 1.493812 | 1.393516 | | | |
| TRAF6 Mediated Induction of proinflammatory cytokines Homo sapiens R-HSA-168180 | 2/72 | 0.393427 | 0.697051 | | | 0 | 0 | | | 1.493812 | 1.393516 | | | |
| AURKA Activation by TPX2 Homo sapiens R-HSA-8854518 | 2/72 | 0.393427 | 0.697051 | | | 0 | 0 | | | 1.493812 | 1.393516 | | | |
| Sema4D in semaphorin signaling Homo sapiens R-HSA-400685 | 1/27 | 0.401164 | 0.699356 | | | 0 | 0 | | | 2.010051 | 1.83595 | | | |
| CREB phosphorylation through the activation of Ras Homo sapiens R-HSA-442742 | 1/27 | 0.401164 | 0.699356 | | | 0 | 0 | | | 2.010051 | 1.83595 | | | |
| EGFR downregulation Homo sapiens R-HSA-182971 | 1/27 | 0.401164 | 0.699356 | | | 0 | 0 | | | 2.010051 | 1.83595 | | | |
| VEGFR2 mediated vascular permeability Homo sapiens R-HSA-5218920 | 1/27 | 0.401164 | 0.699356 | | | 0 | 0 | | | 2.010051 | 1.83595 | | | |
| Pyruvate metabolism Homo sapiens R-HSA-70268 | 1/27 | 0.401164 | 0.699356 | | | 0 | 0 | | | 2.010051 | 1.83595 | | | |
| Interleukin-6 family signaling Homo sapiens R-HSA-6783589 | 1/27 | 0.401164 | 0.699356 | | | 0 | 0 | | | 2.010051 | 1.83595 | | | |
| Signaling by NOTCH Homo sapiens R-HSA-157118 | 3/122 | 0.403223 | 0.701071 | | | 0 | 0 | | | 1.318291 | 1.197358 | | | |
| Binding and Uptake of Ligands by Scavenger Receptors Homo sapiens R-HSA-2173782 | 2/74 | 0.406648 | 0.705145 | | | 0 | 0 | | | 1.452169 | 1.306671 | | | |
| G2/M Transition Homo sapiens R-HSA-69275 | 4/173 | 0.409878 | 0.70886 | | | 0 | 0 | | | 1.237832 | 1.104018 | | | |
| Recognition of DNA damage by PCNA-containing replication complex Homo sapiens R-HSA-110314 | 1/28 | 0.412437 | 0.710846 | | | 0 | 0 | | | 1.935506 | 1.714221 | | | |
| Regulation of DNA replication Homo sapiens R-HSA-69304 | 2/75 | 0.413207 | 0.710846 | | | 0 | 0 | | | 1.432203 | 1.265792 | | | |
| Mitotic G2-G2/M phases Homo sapiens R-HSA-453274 | 4/175 | 0.418321 | 0.717751 | | | 0 | 0 | | | 1.223228 | 1.066051 | | | |
| Surfactant metabolism Homo sapiens R-HSA-5683826 | 1/29 | 0.423499 | 0.719066 | | | 0 | 0 | | | 1.866286 | 1.60352 | | | |
| Activation of BH3-only proteins Homo sapiens R-HSA-114452 | 1/29 | 0.423499 | 0.719066 | | | 0 | 0 | | | 1.866286 | 1.60352 | | | |
| YAP1- and WWTR1 (TAZ)-stimulated gene expression Homo sapiens R-HSA-2032785 | 1/29 | 0.423499 | 0.719066 | | | 0 | 0 | | | 1.866286 | 1.60352 | | | |
| PIWI-interacting RNA (piRNA) biogenesis Homo sapiens R-HSA-5601884 | 1/29 | 0.423499 | 0.719066 | | | 0 | 0 | | | 1.866286 | 1.60352 | | | |
| Tight junction interactions Homo sapiens R-HSA-420029 | 1/30 | 0.434353 | 0.725355 | | | 0 | 0 | | | 1.801839 | 1.50255 | | | |
| RNA Polymerase I Promoter Opening Homo sapiens R-HSA-73728 | 1/30 | 0.434353 | 0.725355 | | | 0 | 0 | | | 1.801839 | 1.50255 | | | |
| Termination of translesion DNA synthesis Homo sapiens R-HSA-5656169 | 1/30 | 0.434353 | 0.725355 | | | 0 | 0 | | | 1.801839 | 1.50255 | | | |
| Activation of the pre-replicative complex Homo sapiens R-HSA-68962 | 1/30 | 0.434353 | 0.725355 | | | 0 | 0 | | | 1.801839 | 1.50255 | | | |
| MAPK targets/ Nuclear events mediated by MAP kinases Homo sapiens R-HSA-450282 | 1/30 | 0.434353 | 0.725355 | | | 0 | 0 | | | 1.801839 | 1.50255 | | | |
| Metabolism of carbohydrates Homo sapiens R-HSA-71387 | 6/282 | 0.43765 | 0.725355 | | | 0 | 0 | | | 1.13678 | 0.939362 | | | |
| RNA Polymerase I Transcription Homo sapiens R-HSA-73864 | 2/79 | 0.439069 | 0.725355 | | | 0 | 0 | | | 1.357525 | 1.117377 | | | |
| Centrosome maturation Homo sapiens R-HSA-380287 | 2/79 | 0.439069 | 0.725355 | | | 0 | 0 | | | 1.357525 | 1.117377 | | | |
| Recruitment of mitotic centrosome proteins and complexes Homo sapiens R-HSA-380270 | 2/79 | 0.439069 | 0.725355 | | | 0 | 0 | | | 1.357525 | 1.117377 | | | |
| HS-GAG biosynthesis Homo sapiens R-HSA-2022928 | 1/31 | 0.445003 | 0.725355 | | | 0 | 0 | | | 1.741689 | 1.4102 | | | |
| Inwardly rectifying K+ channels Homo sapiens R-HSA-1296065 | 1/31 | 0.445003 | 0.725355 | | | 0 | 0 | | | 1.741689 | 1.4102 | | | |
| Trafficking of AMPA receptors Homo sapiens R-HSA-399719 | 1/31 | 0.445003 | 0.725355 | | | 0 | 0 | | | 1.741689 | 1.4102 | | | |
| Glutamate Binding. Activation of AMPA Receptors and Synaptic Plasticity Homo sapiens R-HSA-399721 | 1/31 | 0.445003 | 0.725355 | | | 0 | 0 | | | 1.741689 | 1.4102 | | | |
| Export of Viral Ribonucleoproteins from Nucleus Homo sapiens R-HSA-168274 | 1/31 | 0.445003 | 0.725355 | | | 0 | 0 | | | 1.741689 | 1.4102 | | | |
| Packaging Of Telomere Ends Homo sapiens R-HSA-171306 | 1/31 | 0.445003 | 0.725355 | | | 0 | 0 | | | 1.741689 | 1.4102 | | | |
| Regulation of TNFR1 signaling Homo sapiens R-HSA-5357905 | 1/31 | 0.445003 | 0.725355 | | | 0 | 0 | | | 1.741689 | 1.4102 | | | |
| Processing of DNA double-strand break ends Homo sapiens R-HSA-5693607 | 2/81 | 0.451766 | 0.733223 | | | 0 | 0 | | | 1.323022 | 1.051262 | | | |
| Activation of Matrix Metalloproteinases Homo sapiens R-HSA-1592389 | 1/32 | 0.455453 | 0.733223 | | | 0 | 0 | | | 1.685419 | 1.325519 | | | |
| DNA methylation Homo sapiens R-HSA-5334118 | 1/32 | 0.455453 | 0.733223 | | | 0 | 0 | | | 1.685419 | 1.325519 | | | |
| RNA Polymerase I Transcription Termination Homo sapiens R-HSA-73863 | 1/32 | 0.455453 | 0.733223 | | | 0 | 0 | | | 1.685419 | 1.325519 | | | |
| Gluconeogenesis Homo sapiens R-HSA-70263 | 1/32 | 0.455453 | 0.733223 | | | 0 | 0 | | | 1.685419 | 1.325519 | | | |
| DNA Replication Pre-Initiation Homo sapiens R-HSA-69002 | 2/82 | 0.458052 | 0.733784 | | | 0 | 0 | | | 1.306417 | 1.020013 | | | |
| M/G1 Transition Homo sapiens R-HSA-68874 | 2/82 | 0.458052 | 0.733784 | | | 0 | 0 | | | 1.306417 | 1.020013 | | | |
| PI5P. PP2A and IER3 Regulate PI3K/AKT Signaling Homo sapiens R-HSA-6811558 | 2/83 | 0.464297 | 0.741965 | | | 0 | 0 | | | 1.290222 | 0.989897 | | | |
| Inactivation. recovery and regulation of the phototransduction cascade Homo sapiens R-HSA-2514859 | 1/33 | 0.465707 | 0.742399 | | | 0 | 0 | | | 1.632667 | 1.247681 | | | |
| Class B/2 (Secretin family receptors) Homo sapiens R-HSA-373080 | 2/84 | 0.4705 | 0.747071 | | | 0 | 0 | | | 1.274423 | 0.960864 | | | |
| EPHA-mediated growth cone collapse Homo sapiens R-HSA-3928663 | 1/34 | 0.475768 | 0.747071 | | | 0 | 0 | | | 1.583111 | 1.175973 | | | |
| The phototransduction cascade Homo sapiens R-HSA-2514856 | 1/34 | 0.475768 | 0.747071 | | | 0 | 0 | | | 1.583111 | 1.175973 | | | |
| Activated PKN1 stimulates transcription of AR (androgen receptor) regulated genes KLK2 and KLK3 Homo sapiens R-HSA-5625886 | 1/34 | 0.475768 | 0.747071 | | | 0 | 0 | | | 1.583111 | 1.175973 | | | |
| Negative regulators of RIG-I/MDA5 signaling Homo sapiens R-HSA-936440 | 1/34 | 0.475768 | 0.747071 | | | 0 | 0 | | | 1.583111 | 1.175973 | | | |
| Collagen formation Homo sapiens R-HSA-1474290 | 2/85 | 0.476659 | 0.747071 | | | 0 | 0 | | | 1.259004 | 0.932864 | | | |
| Hedgehog 'on' state Homo sapiens R-HSA-5632684 | 2/85 | 0.476659 | 0.747071 | | | 0 | 0 | | | 1.259004 | 0.932864 | | | |
| Infectious disease Homo sapiens R-HSA-5663205 | 7/348 | 0.481676 | 0.752109 | | | 0 | 0 | | | 1.072734 | 0.783615 | | | |
| Unfolded Protein Response (UPR) Homo sapiens R-HSA-381119 | 2/86 | 0.482775 | 0.752109 | | | 0 | 0 | | | 1.243952 | 0.905853 | | | |
| Post NMDA receptor activation events Homo sapiens R-HSA-438064 | 1/35 | 0.485641 | 0.752109 | | | 0 | 0 | | | 1.536471 | 1.109772 | | | |
| SIRT1 negatively regulates rRNA Expression Homo sapiens R-HSA-427359 | 1/35 | 0.485641 | 0.752109 | | | 0 | 0 | | | 1.536471 | 1.109772 | | | |
| Regulation of TP53 Degradation Homo sapiens R-HSA-6804757 | 1/35 | 0.485641 | 0.752109 | | | 0 | 0 | | | 1.536471 | 1.109772 | | | |
| Regulation of TP53 Expression and Degradation Homo sapiens R-HSA-6806003 | 1/36 | 0.495328 | 0.763237 | | | 0 | 0 | | | 1.492495 | 1.048532 | | | |
| Factors involved in megakaryocyte development and platelet production Homo sapiens R-HSA-983231 | 3/141 | 0.496338 | 0.763237 | | | 0 | 0 | | | 1.13568 | 0.795541 | | | |
| HIV Life Cycle Homo sapiens R-HSA-162587 | 3/141 | 0.496338 | 0.763237 | | | 0 | 0 | | | 1.13568 | 0.795541 | | | |
| Neuronal System Homo sapiens R-HSA-112316 | 6/301 | 0.499965 | 0.767004 | | | 0 | 0 | | | 1.062519 | 0.736558 | | | |
| Steroid hormones Homo sapiens R-HSA-209943 | 1/37 | 0.504833 | 0.770845 | | | 0 | 0 | | | 1.450963 | 0.991775 | | | |
| Translesion synthesis by Y family DNA polymerases bypasses lesions on DNA template Homo sapiens R-HSA-110313 | 1/37 | 0.504833 | 0.770845 | | | 0 | 0 | | | 1.450963 | 0.991775 | | | |
| Negative regulation of the PI3K/AKT network Homo sapiens R-HSA-199418 | 2/90 | 0.506789 | 0.772025 | | | 0 | 0 | | | 1.187166 | 0.806869 | | | |
| PCP/CE pathway Homo sapiens R-HSA-4086400 | 2/91 | 0.512679 | 0.775999 | | | 0 | 0 | | | 1.173767 | 0.7842 | | | |
| Glutathione conjugation Homo sapiens R-HSA-156590 | 1/38 | 0.514159 | 0.775999 | | | 0 | 0 | | | 1.411676 | 0.939079 | | | |
| DNA Damage Recognition in GG-NER Homo sapiens R-HSA-5696394 | 1/38 | 0.514159 | 0.775999 | | | 0 | 0 | | | 1.411676 | 0.939079 | | | |
| Signaling by FGFR1 in disease Homo sapiens R-HSA-5655302 | 1/38 | 0.514159 | 0.775999 | | | 0 | 0 | | | 1.411676 | 0.939079 | | | |
| Phase 1 - Functionalization of compounds Homo sapiens R-HSA-211945 | 2/92 | 0.518522 | 0.776825 | | | 0 | 0 | | | 1.160665 | 0.762294 | | | |
| GABA B receptor activation Homo sapiens R-HSA-977444 | 1/39 | 0.52331 | 0.776825 | | | 0 | 0 | | | 1.374456 | 0.890072 | | | |
| Activation of GABAB receptors Homo sapiens R-HSA-991365 | 1/39 | 0.52331 | 0.776825 | | | 0 | 0 | | | 1.374456 | 0.890072 | | | |
| NS1 Mediated Effects on Host Pathways Homo sapiens R-HSA-168276 | 1/39 | 0.52331 | 0.776825 | | | 0 | 0 | | | 1.374456 | 0.890072 | | | |
| tRNA modification in the nucleus and cytosol Homo sapiens R-HSA-6782315 | 1/39 | 0.52331 | 0.776825 | | | 0 | 0 | | | 1.374456 | 0.890072 | | | |
| Dual Incision in GG-NER Homo sapiens R-HSA-5696400 | 1/39 | 0.52331 | 0.776825 | | | 0 | 0 | | | 1.374456 | 0.890072 | | | |
| Nuclear signaling by ERBB4 Homo sapiens R-HSA-1251985 | 1/39 | 0.52331 | 0.776825 | | | 0 | 0 | | | 1.374456 | 0.890072 | | | |
| Influenza Infection Homo sapiens R-HSA-168254 | 3/147 | 0.524238 | 0.776825 | | | 0 | 0 | | | 1.088025 | 0.702658 | | | |
| PRC2 methylates histones and DNA Homo sapiens R-HSA-212300 | 1/40 | 0.532289 | 0.784319 | | | 0 | 0 | | | 1.339145 | 0.844422 | | | |
| TNFR2 non-canonical NF-kB pathway Homo sapiens R-HSA-5668541 | 2/95 | 0.53577 | 0.784319 | | | 0 | 0 | | | 1.123052 | 0.700842 | | | |
| Host Interactions with Influenza Factors Homo sapiens R-HSA-168253 | 1/41 | 0.5411 | 0.784319 | | | 0 | 0 | | | 1.3056 | 0.801836 | | | |
| Condensation of Prophase Chromosomes Homo sapiens R-HSA-2299718 | 1/41 | 0.5411 | 0.784319 | | | 0 | 0 | | | 1.3056 | 0.801836 | | | |
| TNF signaling Homo sapiens R-HSA-75893 | 1/41 | 0.5411 | 0.784319 | | | 0 | 0 | | | 1.3056 | 0.801836 | | | |
| Regulation of TP53 Activity Homo sapiens R-HSA-5633007 | 3/151 | 0.542359 | 0.784319 | | | 0 | 0 | | | 1.058402 | 0.647558 | | | |
| Synthesis of DNA Homo sapiens R-HSA-69239 | 2/97 | 0.54703 | 0.784319 | | | 0 | 0 | | | 1.099296 | 0.663152 | | | |
| MyD88-independent TLR3/TLR4 cascade Homo sapiens R-HSA-166166 | 2/97 | 0.54703 | 0.784319 | | | 0 | 0 | | | 1.099296 | 0.663152 | | | |
| Toll Like Receptor 3 (TLR3) Cascade Homo sapiens R-HSA-168164 | 2/97 | 0.54703 | 0.784319 | | | 0 | 0 | | | 1.099296 | 0.663152 | | | |
| TRIF-mediated TLR3/TLR4 signaling Homo sapiens R-HSA-937061 | 2/97 | 0.54703 | 0.784319 | | | 0 | 0 | | | 1.099296 | 0.663152 | | | |
| Anchoring of the basal body to the plasma membrane Homo sapiens R-HSA-5620912 | 2/97 | 0.54703 | 0.784319 | | | 0 | 0 | | | 1.099296 | 0.663152 | | | |
| Signaling by Retinoic Acid Homo sapiens R-HSA-5362517 | 1/42 | 0.549745 | 0.784319 | | | 0 | 0 | | | 1.273691 | 0.762051 | | | |
| Retinoid metabolism and transport Homo sapiens R-HSA-975634 | 1/42 | 0.549745 | 0.784319 | | | 0 | 0 | | | 1.273691 | 0.762051 | | | |
| Intrinsic Pathway for Apoptosis Homo sapiens R-HSA-109606 | 1/42 | 0.549745 | 0.784319 | | | 0 | 0 | | | 1.273691 | 0.762051 | | | |
| Glucose transport Homo sapiens R-HSA-70153 | 1/42 | 0.549745 | 0.784319 | | | 0 | 0 | | | 1.273691 | 0.762051 | | | |
| Activation of gene expression by SREBF (SREBP) Homo sapiens R-HSA-2426168 | 1/42 | 0.549745 | 0.784319 | | | 0 | 0 | | | 1.273691 | 0.762051 | | | |
| Deactivation of the beta-catenin transactivating complex Homo sapiens R-HSA-3769402 | 1/42 | 0.549745 | 0.784319 | | | 0 | 0 | | | 1.273691 | 0.762051 | | | |
| Potassium Channels Homo sapiens R-HSA-1296071 | 2/99 | 0.558099 | 0.784406 | | | 0 | 0 | | | 1.07652 | 0.627847 | | | |
| CLEC7A (Dectin-1) signaling Homo sapiens R-HSA-5607764 | 2/99 | 0.558099 | 0.784406 | | | 0 | 0 | | | 1.07652 | 0.627847 | | | |
| Downstream TCR signaling Homo sapiens R-HSA-202424 | 2/99 | 0.558099 | 0.784406 | | | 0 | 0 | | | 1.07652 | 0.627847 | | | |
| Iron uptake and transport Homo sapiens R-HSA-917937 | 1/43 | 0.558227 | 0.784406 | | | 0 | 0 | | | 1.243302 | 0.724831 | | | |
| ERCC6 (CSB) and EHMT2 (G9a) positively regulate rRNA expression Homo sapiens R-HSA-427389 | 1/43 | 0.558227 | 0.784406 | | | 0 | 0 | | | 1.243302 | 0.724831 | | | |
| Formation of Incision Complex in GG-NER Homo sapiens R-HSA-5696395 | 1/43 | 0.558227 | 0.784406 | | | 0 | 0 | | | 1.243302 | 0.724831 | | | |
| Signaling by FGFR2 in disease Homo sapiens R-HSA-5655253 | 1/43 | 0.558227 | 0.784406 | | | 0 | 0 | | | 1.243302 | 0.724831 | | | |
| Intra-Golgi traffic Homo sapiens R-HSA-6811438 | 1/44 | 0.566551 | 0.794371 | | | 0 | 0 | | | 1.214326 | 0.689966 | | | |
| Transport of glucose and other sugars. bile salts and organic acids. metal ions and amine compounds Homo sapiens R-HSA-425366 | 2/101 | 0.568974 | 0.794371 | | | 0 | 0 | | | 1.054664 | 0.594747 | | | |
| Gene Silencing by RNA Homo sapiens R-HSA-211000 | 2/101 | 0.568974 | 0.794371 | | | 0 | 0 | | | 1.054664 | 0.594747 | | | |
| Diseases of metabolism Homo sapiens R-HSA-5668914 | 1/45 | 0.574717 | 0.800675 | | | 0 | 0 | | | 1.186667 | 0.657267 | | | |
| tRNA processing Homo sapiens R-HSA-72306 | 2/103 | 0.579655 | 0.805831 | | | 0 | 0 | | | 1.033674 | 0.563686 | | | |
| DNA Damage Bypass Homo sapiens R-HSA-73893 | 1/46 | 0.582731 | 0.808384 | | | 0 | 0 | | | 1.160237 | 0.626563 | | | |
| NOTCH1 Intracellular Domain Regulates Transcription Homo sapiens R-HSA-2122947 | 1/47 | 0.590594 | 0.81582 | | | 0 | 0 | | | 1.134957 | 0.597699 | | | |
| Nucleotide-binding domain. leucine rich repeat containing receptor (NLR) signaling pathways Homo sapiens R-HSA-168643 | 1/47 | 0.590594 | 0.81582 | | | 0 | 0 | | | 1.134957 | 0.597699 | | | |
| EPH-ephrin mediated repulsion of cells Homo sapiens R-HSA-3928665 | 1/48 | 0.598308 | 0.821257 | | | 0 | 0 | | | 1.110752 | 0.570536 | | | |
| Pyruvate metabolism and Citric Acid (TCA) cycle Homo sapiens R-HSA-71406 | 1/48 | 0.598308 | 0.821257 | | | 0 | 0 | | | 1.110752 | 0.570536 | | | |
| Death Receptor Signalling Homo sapiens R-HSA-73887 | 1/48 | 0.598308 | 0.821257 | | | 0 | 0 | | | 1.110752 | 0.570536 | | | |
| Regulation of activated PAK-2p34 by proteasome mediated degradation Homo sapiens R-HSA-211733 | 1/49 | 0.605878 | 0.826848 | | | 0 | 0 | | | 1.087556 | 0.544948 | | | |
| Disease Homo sapiens R-HSA-1643685 | 13/725 | 0.608912 | 0.826848 | | | 0 | 0 | | | 0.951249 | 0.471897 | | | |
| Deadenylation-dependent mRNA decay Homo sapiens R-HSA-429914 | 1/50 | 0.613306 | 0.826848 | | | 0 | 0 | | | 1.065306 | 0.520819 | | | |
| CDK-mediated phosphorylation and removal of Cdc6 Homo sapiens R-HSA-69017 | 1/50 | 0.613306 | 0.826848 | | | 0 | 0 | | | 1.065306 | 0.520819 | | | |
| Ubiquitin-dependent degradation of Cyclin D1 Homo sapiens R-HSA-69229 | 1/50 | 0.613306 | 0.826848 | | | 0 | 0 | | | 1.065306 | 0.520819 | | | |
| Ubiquitin-dependent degradation of Cyclin D Homo sapiens R-HSA-75815 | 1/50 | 0.613306 | 0.826848 | | | 0 | 0 | | | 1.065306 | 0.520819 | | | |
| Regulation of Apoptosis Homo sapiens R-HSA-169911 | 1/50 | 0.613306 | 0.826848 | | | 0 | 0 | | | 1.065306 | 0.520819 | | | |
| Chromatin organization Homo sapiens R-HSA-4839726 | 4/226 | 0.617021 | 0.826848 | | | 0 | 0 | | | 0.939746 | 0.453759 | | | |
| Chromatin modifying enzymes Homo sapiens R-HSA-3247509 | 4/226 | 0.617021 | 0.826848 | | | 0 | 0 | | | 0.939746 | 0.453759 | | | |
| FCERI mediated NF-kB activation Homo sapiens R-HSA-2871837 | 2/111 | 0.620424 | 0.826848 | | | 0 | 0 | | | 0.957415 | 0.457024 | | | |
| Neurotransmitter Release Cycle Homo sapiens R-HSA-112310 | 1/51 | 0.620594 | 0.826848 | | | 0 | 0 | | | 1.043947 | 0.498044 | | | |
| Vpu mediated degradation of CD4 Homo sapiens R-HSA-180534 | 1/51 | 0.620594 | 0.826848 | | | 0 | 0 | | | 1.043947 | 0.498044 | | | |
| Autodegradation of the E3 ubiquitin ligase COP1 Homo sapiens R-HSA-349425 | 1/51 | 0.620594 | 0.826848 | | | 0 | 0 | | | 1.043947 | 0.498044 | | | |
| HDR through Homologous Recombination (HR) or Single Strand Annealing (SSA) Homo sapiens R-HSA-5693567 | 2/112 | 0.625301 | 0.826848 | | | 0 | 0 | | | 0.948663 | 0.445419 | | | |
| Deposition of new CENPA-containing nucleosomes at the centromere Homo sapiens R-HSA-606279 | 1/52 | 0.627745 | 0.826848 | | | 0 | 0 | | | 1.023425 | 0.476528 | | | |
| Nucleosome assembly Homo sapiens R-HSA-774815 | 1/52 | 0.627745 | 0.826848 | | | 0 | 0 | | | 1.023425 | 0.476528 | | | |
| Nonhomologous End-Joining (NHEJ) Homo sapiens R-HSA-5693571 | 1/52 | 0.627745 | 0.826848 | | | 0 | 0 | | | 1.023425 | 0.476528 | | | |
| p53-Independent DNA Damage Response Homo sapiens R-HSA-69610 | 1/52 | 0.627745 | 0.826848 | | | 0 | 0 | | | 1.023425 | 0.476528 | | | |
| p53-Independent G1/S DNA damage checkpoint Homo sapiens R-HSA-69613 | 1/52 | 0.627745 | 0.826848 | | | 0 | 0 | | | 1.023425 | 0.476528 | | | |
| Ubiquitin Mediated Degradation of Phosphorylated Cdc25A Homo sapiens R-HSA-69601 | 1/52 | 0.627745 | 0.826848 | | | 0 | 0 | | | 1.023425 | 0.476528 | | | |
| Formation of TC-NER Pre-Incision Complex Homo sapiens R-HSA-6781823 | 1/53 | 0.634762 | 0.832726 | | | 0 | 0 | | | 1.003692 | 0.456184 | | | |
| Vif-mediated degradation of APOBEC3G Homo sapiens R-HSA-180585 | 1/53 | 0.634762 | 0.832726 | | | 0 | 0 | | | 1.003692 | 0.456184 | | | |
| Heparan sulfate/heparin (HS-GAG) metabolism Homo sapiens R-HSA-1638091 | 1/54 | 0.641646 | 0.833373 | | | 0 | 0 | | | 0.984704 | 0.436931 | | | |
| Meiotic recombination Homo sapiens R-HSA-912446 | 1/54 | 0.641646 | 0.833373 | | | 0 | 0 | | | 0.984704 | 0.436931 | | | |
| SCF-beta-TrCP mediated degradation of Emi1 Homo sapiens R-HSA-174113 | 1/54 | 0.641646 | 0.833373 | | | 0 | 0 | | | 0.984704 | 0.436931 | | | |
| Stabilization of p53 Homo sapiens R-HSA-69541 | 1/54 | 0.641646 | 0.833373 | | | 0 | 0 | | | 0.984704 | 0.436931 | | | |
| Degradation of AXIN Homo sapiens R-HSA-4641257 | 1/54 | 0.641646 | 0.833373 | | | 0 | 0 | | | 0.984704 | 0.436931 | | | |
| RNA Polymerase I. RNA Polymerase III. and Mitochondrial Transcription Homo sapiens R-HSA-504046 | 2/116 | 0.644322 | 0.835185 | | | 0 | 0 | | | 0.915189 | 0.402277 | | | |
| GABA receptor activation Homo sapiens R-HSA-977443 | 1/55 | 0.648402 | 0.837144 | | | 0 | 0 | | | 0.96642 | 0.418696 | | | |
| Regulation of cholesterol biosynthesis by SREBP (SREBF) Homo sapiens R-HSA-1655829 | 1/55 | 0.648402 | 0.837144 | | | 0 | 0 | | | 0.96642 | 0.418696 | | | |
| Homology Directed Repair Homo sapiens R-HSA-5693538 | 2/118 | 0.653544 | 0.839585 | | | 0 | 0 | | | 0.899318 | 0.382521 | | | |
| TCR signaling Homo sapiens R-HSA-202403 | 2/118 | 0.653544 | 0.839585 | | | 0 | 0 | | | 0.899318 | 0.382521 | | | |
| Degradation of DVL Homo sapiens R-HSA-4641258 | 1/56 | 0.65503 | 0.839585 | | | 0 | 0 | | | 0.9488 | 0.401413 | | | |
| tRNA processing in the nucleus Homo sapiens R-HSA-6784531 | 1/57 | 0.661534 | 0.839585 | | | 0 | 0 | | | 0.93181 | 0.385019 | | | |
| Meiotic synapsis Homo sapiens R-HSA-1221632 | 1/57 | 0.661534 | 0.839585 | | | 0 | 0 | | | 0.93181 | 0.385019 | | | |
| RNA Polymerase I Chain Elongation Homo sapiens R-HSA-73777 | 1/57 | 0.661534 | 0.839585 | | | 0 | 0 | | | 0.93181 | 0.385019 | | | |
| rRNA modification in the nucleus Homo sapiens R-HSA-6790901 | 1/58 | 0.667915 | 0.839585 | | | 0 | 0 | | | 0.915415 | 0.369457 | | | |
| Formation of the beta-catenin:TCF transactivating complex Homo sapiens R-HSA-201722 | 1/58 | 0.667915 | 0.839585 | | | 0 | 0 | | | 0.915415 | 0.369457 | | | |
| B-WICH complex positively regulates rRNA expression Homo sapiens R-HSA-5250924 | 1/58 | 0.667915 | 0.839585 | | | 0 | 0 | | | 0.915415 | 0.369457 | | | |
| NIK-->noncanonical NF-kB signaling Homo sapiens R-HSA-5676590 | 1/58 | 0.667915 | 0.839585 | | | 0 | 0 | | | 0.915415 | 0.369457 | | | |
| CDT1 association with the CDC6:ORC:origin complex Homo sapiens R-HSA-68827 | 1/58 | 0.667915 | 0.839585 | | | 0 | 0 | | | 0.915415 | 0.369457 | | | |
| Cell Cycle Checkpoints Homo sapiens R-HSA-69620 | 3/182 | 0.668221 | 0.839585 | | | 0 | 0 | | | 0.87371 | 0.352224 | | | |
| Telomere Maintenance Homo sapiens R-HSA-157579 | 1/59 | 0.674176 | 0.839585 | | | 0 | 0 | | | 0.899586 | 0.354674 | | | |
| Degradation of GLI1 by the proteasome Homo sapiens R-HSA-5610780 | 1/59 | 0.674176 | 0.839585 | | | 0 | 0 | | | 0.899586 | 0.354674 | | | |
| GLI3 is processed to GLI3R by the proteasome Homo sapiens R-HSA-5610785 | 1/59 | 0.674176 | 0.839585 | | | 0 | 0 | | | 0.899586 | 0.354674 | | | |
| Degradation of GLI2 by the proteasome Homo sapiens R-HSA-5610783 | 1/59 | 0.674176 | 0.839585 | | | 0 | 0 | | | 0.899586 | 0.354674 | | | |
| C-type lectin receptors (CLRs) Homo sapiens R-HSA-5621481 | 2/123 | 0.675764 | 0.839585 | | | 0 | 0 | | | 0.861935 | 0.337802 | | | |
| S Phase Homo sapiens R-HSA-69242 | 2/124 | 0.680067 | 0.839585 | | | 0 | 0 | | | 0.854826 | 0.32959 | | | |
| Cleavage of Growing Transcript in the Termination Region Homo sapiens R-HSA-109688 | 1/60 | 0.68032 | 0.839585 | | | 0 | 0 | | | 0.884294 | 0.340623 | | | |
| RNA Polymerase II Transcription Termination Homo sapiens R-HSA-73856 | 1/60 | 0.68032 | 0.839585 | | | 0 | 0 | | | 0.884294 | 0.340623 | | | |
| Post-Elongation Processing of the Transcript Homo sapiens R-HSA-76044 | 1/60 | 0.68032 | 0.839585 | | | 0 | 0 | | | 0.884294 | 0.340623 | | | |
| RHO GTPases activate PKNs Homo sapiens R-HSA-5625740 | 1/60 | 0.68032 | 0.839585 | | | 0 | 0 | | | 0.884294 | 0.340623 | | | |
| HDACs deacetylate histones Homo sapiens R-HSA-3214815 | 1/60 | 0.68032 | 0.839585 | | | 0 | 0 | | | 0.884294 | 0.340623 | | | |
| Immune System Homo sapiens R-HSA-168256 | 27/1547 | 0.685598 | 0.839585 | | | 0 | 0 | | | 0.921445 | 0.347812 | | | |
| Cell-cell junction organization Homo sapiens R-HSA-421270 | 1/61 | 0.686348 | 0.839585 | | | 0 | 0 | | | 0.869511 | 0.327258 | | | |
| Cell death signalling via NRAGE. NRIF and NADE Homo sapiens R-HSA-204998 | 1/61 | 0.686348 | 0.839585 | | | 0 | 0 | | | 0.869511 | 0.327258 | | | |
| TP53 Regulates Transcription of DNA Repair Genes Homo sapiens R-HSA-6796648 | 1/61 | 0.686348 | 0.839585 | | | 0 | 0 | | | 0.869511 | 0.327258 | | | |
| Dectin-1 mediated noncanonical NF-kB signaling Homo sapiens R-HSA-5607761 | 1/61 | 0.686348 | 0.839585 | | | 0 | 0 | | | 0.869511 | 0.327258 | | | |
| Cytochrome P450 - arranged by substrate type Homo sapiens R-HSA-211897 | 1/62 | 0.692263 | 0.842081 | | | 0 | 0 | | | 0.855213 | 0.314539 | | | |
| Gap-filling DNA repair synthesis and ligation in TC-NER Homo sapiens R-HSA-6782210 | 1/62 | 0.692263 | 0.842081 | | | 0 | 0 | | | 0.855213 | 0.314539 | | | |
| Autodegradation of Cdh1 by Cdh1:APC/C Homo sapiens R-HSA-174084 | 1/62 | 0.692263 | 0.842081 | | | 0 | 0 | | | 0.855213 | 0.314539 | | | |
| Late Phase of HIV Life Cycle Homo sapiens R-HSA-162599 | 2/128 | 0.696813 | 0.844414 | | | 0 | 0 | | | 0.827519 | 0.298931 | | | |
| Dual incision in TC-NER Homo sapiens R-HSA-6782135 | 1/63 | 0.698066 | 0.844414 | | | 0 | 0 | | | 0.841376 | 0.302426 | | | |
| Signaling by FGFR in disease Homo sapiens R-HSA-1226099 | 1/63 | 0.698066 | 0.844414 | | | 0 | 0 | | | 0.841376 | 0.302426 | | | |
| G alpha (q) signalling events Homo sapiens R-HSA-416476 | 3/191 | 0.699652 | 0.844765 | | | 0 | 0 | | | 0.831498 | 0.296988 | | | |
| HDR through Homologous Recombination (HRR) Homo sapiens R-HSA-5685942 | 1/64 | 0.70376 | 0.848155 | | | 0 | 0 | | | 0.827979 | 0.290883 | | | |
| Peptide ligand-binding receptors Homo sapiens R-HSA-375276 | 3/193 | 0.706322 | 0.849671 | | | 0 | 0 | | | 0.822661 | 0.286026 | | | |
| ER-Phagosome pathway Homo sapiens R-HSA-1236974 | 1/65 | 0.709347 | 0.851739 | | | 0 | 0 | | | 0.815 | 0.279879 | | | |
| APC/C:Cdc20 mediated degradation of Securin Homo sapiens R-HSA-174154 | 1/66 | 0.714829 | 0.855172 | | | 0 | 0 | | | 0.802421 | 0.269382 | | | |
| Cytosolic sensors of pathogen-associated DNA Homo sapiens R-HSA-1834949 | 1/66 | 0.714829 | 0.855172 | | | 0 | 0 | | | 0.802421 | 0.269382 | | | |
| Regulation of RAS by GAPs Homo sapiens R-HSA-5658442 | 1/67 | 0.720208 | 0.857318 | | | 0 | 0 | | | 0.790222 | 0.259363 | | | |
| Assembly of the pre-replicative complex Homo sapiens R-HSA-68867 | 1/67 | 0.720208 | 0.857318 | | | 0 | 0 | | | 0.790222 | 0.259363 | | | |
| mRNA Splicing - Major Pathway Homo sapiens R-HSA-72163 | 2/134 | 0.720568 | 0.857318 | | | 0 | 0 | | | 0.789661 | 0.258784 | | | |
| Antigen processing: Ubiquitination & Proteasome degradation Homo sapiens R-HSA-983168 | 4/260 | 0.723329 | 0.859036 | | | 0 | 0 | | | 0.813508 | 0.263488 | | | |
| TCF dependent signaling in response to WNT Homo sapiens R-HSA-201681 | 3/199 | 0.725651 | 0.859839 | | | 0 | 0 | | | 0.797231 | 0.255661 | | | |
| Influenza Life Cycle Homo sapiens R-HSA-168255 | 2/136 | 0.728131 | 0.859839 | | | 0 | 0 | | | 0.777796 | 0.246774 | | | |
| Signaling by Hedgehog Homo sapiens R-HSA-5358351 | 2/136 | 0.728131 | 0.859839 | | | 0 | 0 | | | 0.777796 | 0.246774 | | | |
| Class A/1 (Rhodopsin-like receptors) Homo sapiens R-HSA-373076 | 5/323 | 0.729281 | 0.859839 | | | 0 | 0 | | | 0.818203 | 0.258304 | | | |
| GPCR ligand binding Homo sapiens R-HSA-500792 | 7/447 | 0.738871 | 0.868627 | | | 0 | 0 | | | 0.8271 | 0.250307 | | | |
| APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cdh1 targeted proteins in late mitosis/early G1 Homo sapiens R-HSA-174178 | 1/71 | 0.740731 | 0.868627 | | | 0 | 0 | | | 0.744914 | 0.223562 | | | |
| Cdc20:Phospho-APC/C mediated degradation of Cyclin A Homo sapiens R-HSA-174184 | 1/71 | 0.740731 | 0.868627 | | | 0 | 0 | | | 0.744914 | 0.223562 | | | |
| Transcriptional regulation by small RNAs Homo sapiens R-HSA-5578749 | 1/72 | 0.745623 | 0.871229 | | | 0 | 0 | | | 0.734385 | 0.215568 | | | |
| APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfation of the cell cycle checkpoint Homo sapiens R-HSA-179419 | 1/72 | 0.745623 | 0.871229 | | | 0 | 0 | | | 0.734385 | 0.215568 | | | |
| G alpha (s) signalling events Homo sapiens R-HSA-418555 | 2/142 | 0.749787 | 0.872148 | | | 0 | 0 | | | 0.744232 | 0.214314 | | | |
| Positive epigenetic regulation of rRNA expression Homo sapiens R-HSA-5250913 | 1/73 | 0.750422 | 0.872148 | | | 0 | 0 | | | 0.724148 | 0.207917 | | | |
| NoRC negatively regulates rRNA expression Homo sapiens R-HSA-427413 | 1/73 | 0.750422 | 0.872148 | | | 0 | 0 | | | 0.724148 | 0.207917 | | | |
| APC/C:Cdc20 mediated degradation of mitotic proteins Homo sapiens R-HSA-176409 | 1/74 | 0.755131 | 0.874731 | | | 0 | 0 | | | 0.714192 | 0.20059 | | | |
| mRNA Splicing Homo sapiens R-HSA-72172 | 2/144 | 0.756669 | 0.874731 | | | 0 | 0 | | | 0.733675 | 0.20457 | | | |
| Beta-catenin independent WNT signaling Homo sapiens R-HSA-3858494 | 2/144 | 0.756669 | 0.874731 | | | 0 | 0 | | | 0.733675 | 0.20457 | | | |
| Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins Homo sapiens R-HSA-176814 | 1/75 | 0.759752 | 0.875533 | | | 0 | 0 | | | 0.704505 | 0.193572 | | | |
| DNA Double-Strand Break Repair Homo sapiens R-HSA-5693532 | 2/145 | 0.760048 | 0.875533 | | | 0 | 0 | | | 0.728507 | 0.199883 | | | |
| Negative epigenetic regulation of rRNA expression Homo sapiens R-HSA-5250941 | 1/76 | 0.764286 | 0.875772 | | | 0 | 0 | | | 0.695076 | 0.186846 | | | |
| RNA Polymerase I Promoter Clearance Homo sapiens R-HSA-73854 | 1/76 | 0.764286 | 0.875772 | | | 0 | 0 | | | 0.695076 | 0.186846 | | | |
| Transcription-Coupled Nucleotide Excision Repair (TC-NER) Homo sapiens R-HSA-6781827 | 1/76 | 0.764286 | 0.875772 | | | 0 | 0 | | | 0.695076 | 0.186846 | | | |
| Cell Cycle. Mitotic Homo sapiens R-HSA-69278 | 7/462 | 0.768782 | 0.877253 | | | 0 | 0 | | | 0.799208 | 0.21015 | | | |
| Metabolism of vitamins and cofactors Homo sapiens R-HSA-196854 | 2/148 | 0.769945 | 0.877253 | | | 0 | 0 | | | 0.713428 | 0.186516 | | | |
| G2/M DNA damage checkpoint Homo sapiens R-HSA-69473 | 1/78 | 0.773098 | 0.877253 | | | 0 | 0 | | | 0.676952 | 0.174213 | | | |
| Signal Transduction Homo sapiens R-HSA-162582 | 42/2465 | 0.776066 | 0.877253 | | | 0 | 0 | | | 0.892695 | 0.226313 | | | |
| G2/M Checkpoints Homo sapiens R-HSA-69481 | 2/150 | 0.776343 | 0.877253 | | | 0 | 0 | | | 0.703714 | 0.178153 | | | |
| PI3K Cascade Homo sapiens R-HSA-109704 | 1/79 | 0.777381 | 0.877253 | | | 0 | 0 | | | 0.668239 | 0.168279 | | | |
| Regulation of APC/C activators between G1/S and early anaphase Homo sapiens R-HSA-176408 | 1/79 | 0.777381 | 0.877253 | | | 0 | 0 | | | 0.668239 | 0.168279 | | | |
| RIG-I/MDA5 mediated induction of IFN-alpha/beta pathways Homo sapiens R-HSA-168928 | 1/79 | 0.777381 | 0.877253 | | | 0 | 0 | | | 0.668239 | 0.168279 | | | |
| Fatty acid. triacylglycerol. and ketone body metabolism Homo sapiens R-HSA-535734 | 3/217 | 0.777688 | 0.877253 | | | 0 | 0 | | | 0.729498 | 0.183418 | | | |
| Complement cascade Homo sapiens R-HSA-166658 | 1/80 | 0.781583 | 0.878876 | | | 0 | 0 | | | 0.659747 | 0.162584 | | | |
| Extracellular matrix organization Homo sapiens R-HSA-1474244 | 4/283 | 0.781822 | 0.878876 | | | 0 | 0 | | | 0.745558 | 0.183503 | | | |
| The citric acid (TCA) cycle and respiratory electron transport Homo sapiens R-HSA-1428517 | 2/153 | 0.78565 | 0.879667 | | | 0 | 0 | | | 0.689627 | 0.166368 | | | |
| Peptide hormone metabolism Homo sapiens R-HSA-2980736 | 1/81 | 0.785705 | 0.879667 | | | 0 | 0 | | | 0.651467 | 0.157116 | | | |
| Global Genome Nucleotide Excision Repair (GG-NER) Homo sapiens R-HSA-5696399 | 1/82 | 0.789751 | 0.879667 | | | 0 | 0 | | | 0.643391 | 0.151865 | | | |
| Degradation of beta-catenin by the destruction complex Homo sapiens R-HSA-195253 | 1/82 | 0.789751 | 0.879667 | | | 0 | 0 | | | 0.643391 | 0.151865 | | | |
| Antigen processing-Cross presentation Homo sapiens R-HSA-1236975 | 1/82 | 0.789751 | 0.879667 | | | 0 | 0 | | | 0.643391 | 0.151865 | | | |
| HIV Infection Homo sapiens R-HSA-162906 | 3/222 | 0.790621 | 0.879667 | | | 0 | 0 | | | 0.712659 | 0.16743 | | | |
| p75 NTR receptor-mediated signalling Homo sapiens R-HSA-193704 | 1/83 | 0.793719 | 0.879689 | | | 0 | 0 | | | 0.635512 | 0.146819 | | | |
| Immunoregulatory interactions between a Lymphoid and a non-Lymphoid cell Homo sapiens R-HSA-198933 | 2/157 | 0.797529 | 0.879689 | | | 0 | 0 | | | 0.671692 | 0.151962 | | | |
| Mitochondrial translation initiation Homo sapiens R-HSA-5368286 | 1/84 | 0.797614 | 0.879689 | | | 0 | 0 | | | 0.627823 | 0.14197 | | | |
| Mitochondrial translation termination Homo sapiens R-HSA-5419276 | 1/84 | 0.797614 | 0.879689 | | | 0 | 0 | | | 0.627823 | 0.14197 | | | |
| Mitochondrial translation elongation Homo sapiens R-HSA-5389840 | 1/84 | 0.797614 | 0.879689 | | | 0 | 0 | | | 0.627823 | 0.14197 | | | |
| Meiosis Homo sapiens R-HSA-1500620 | 1/85 | 0.801435 | 0.879689 | | | 0 | 0 | | | 0.620317 | 0.137309 | | | |
| APC/C-mediated degradation of cell cycle proteins Homo sapiens R-HSA-174143 | 1/85 | 0.801435 | 0.879689 | | | 0 | 0 | | | 0.620317 | 0.137309 | | | |
| Regulation of mitotic cell cycle Homo sapiens R-HSA-453276 | 1/85 | 0.801435 | 0.879689 | | | 0 | 0 | | | 0.620317 | 0.137309 | | | |
| Cell junction organization Homo sapiens R-HSA-446728 | 1/86 | 0.805183 | 0.880838 | | | 0 | 0 | | | 0.612988 | 0.132825 | | | |
| Chromosome Maintenance Homo sapiens R-HSA-73886 | 1/86 | 0.805183 | 0.880838 | | | 0 | 0 | | | 0.612988 | 0.132825 | | | |
| Signaling by Wnt Homo sapiens R-HSA-195721 | 4/295 | 0.808218 | 0.882677 | | | 0 | 0 | | | 0.71437 | 0.152106 | | | |
| Apoptosis Homo sapiens R-HSA-109581 | 2/163 | 0.814256 | 0.887784 | | | 0 | 0 | | | 0.646461 | 0.132835 | | | |
| Regulation of TP53 Activity through Phosphorylation Homo sapiens R-HSA-6804756 | 1/89 | 0.816012 | 0.888213 | | | 0 | 0 | | | 0.592 | 0.120369 | | | |
| Mitochondrial translation Homo sapiens R-HSA-5368287 | 1/90 | 0.819486 | 0.888957 | | | 0 | 0 | | | 0.585318 | 0.116524 | | | |
| Vesicle-mediated transport Homo sapiens R-HSA-5653656 | 7/492 | 0.820953 | 0.888957 | | | 0 | 0 | | | 0.748599 | 0.14769 | | | |
| Major pathway of rRNA processing in the nucleolus Homo sapiens R-HSA-6791226 | 2/166 | 0.822149 | 0.888957 | | | 0 | 0 | | | 0.634538 | 0.124264 | | | |
| Programmed Cell Death Homo sapiens R-HSA-5357801 | 2/166 | 0.822149 | 0.888957 | | | 0 | 0 | | | 0.634538 | 0.124264 | | | |
| Class I MHC mediated antigen processing & presentation Homo sapiens R-HSA-983169 | 4/305 | 0.828181 | 0.893996 | | | 0 | 0 | | | 0.69028 | 0.130134 | | | |
| L1CAM interactions Homo sapiens R-HSA-373760 | 1/96 | 0.839001 | 0.904179 | | | 0 | 0 | | | 0.548182 | 0.09623 | | | |
| Regulation of actin dynamics for phagocytic cup formation Homo sapiens R-HSA-2029482 | 1/97 | 0.842042 | 0.90596 | | | 0 | 0 | | | 0.542444 | 0.09326 | | | |
| Hedgehog 'off' state Homo sapiens R-HSA-5610787 | 1/99 | 0.847954 | 0.910817 | | | 0 | 0 | | | 0.53132 | 0.08763 | | | |
| Stimuli-sensing channels Homo sapiens R-HSA-2672351 | 1/100 | 0.850827 | 0.910901 | | | 0 | 0 | | | 0.525926 | 0.084962 | | | |
| Phase II conjugation Homo sapiens R-HSA-156580 | 1/100 | 0.850827 | 0.910901 | | | 0 | 0 | | | 0.525926 | 0.084962 | | | |
| Adaptive Immune System Homo sapiens R-HSA-1280218 | 11/762 | 0.852384 | 0.910927 | | | 0 | 0 | | | 0.757357 | 0.120964 | | | |
| Cell surface interactions at the vascular wall Homo sapiens R-HSA-202733 | 1/101 | 0.853645 | 0.910927 | | | 0 | 0 | | | 0.52064 | 0.082386 | | | |
| rRNA processing Homo sapiens R-HSA-72312 | 2/180 | 0.855138 | 0.91103 | | | 0 | 0 | | | 0.58421 | 0.091424 | | | |
| Platelet degranulation Homo sapiens R-HSA-114608 | 1/105 | 0.864398 | 0.919392 | | | 0 | 0 | | | 0.500513 | 0.072936 | | | |
| Assembly of the primary cilium Homo sapiens R-HSA-5617833 | 2/187 | 0.869453 | 0.921785 | | | 0 | 0 | | | 0.561902 | 0.078605 | | | |
| Mitotic Prophase Homo sapiens R-HSA-68875 | 1/107 | 0.869475 | 0.921785 | | | 0 | 0 | | | 0.491019 | 0.068677 | | | |
| Nucleotide Excision Repair Homo sapiens R-HSA-5696398 | 1/108 | 0.871942 | 0.9229 | | | 0 | 0 | | | 0.486405 | 0.066653 | | | |
| Respiratory electron transport. ATP synthesis by chemiosmotic coupling. and heat production by uncoupling proteins. Homo sapiens R-HSA-163200 | 1/109 | 0.874363 | 0.923962 | | | 0 | 0 | | | 0.481877 | 0.064697 | | | |
| Response to elevated platelet cytosolic Ca2+ Homo sapiens R-HSA-76005 | 1/110 | 0.876738 | 0.924972 | | | 0 | 0 | | | 0.477431 | 0.062805 | | | |
| Processing of Capped Intron-Containing Pre-mRNA Homo sapiens R-HSA-72203 | 2/193 | 0.880677 | 0.927628 | | | 0 | 0 | | | 0.544083 | 0.069133 | | | |
| Epigenetic regulation of gene expression Homo sapiens R-HSA-212165 | 1/115 | 0.887957 | 0.933787 | | | 0 | 0 | | | 0.456374 | 0.054232 | | | |
| Fcgamma receptor (FCGR) dependent phagocytosis Homo sapiens R-HSA-2029480 | 1/120 | 0.898158 | 0.941982 | | | 0 | 0 | | | 0.437087 | 0.046947 | | | |
| Membrane Trafficking Homo sapiens R-HSA-199991 | 5/420 | 0.898925 | 0.941982 | | | 0 | 0 | | | 0.623811 | 0.066471 | | | |
| Glycosaminoglycan metabolism Homo sapiens R-HSA-1630316 | 1/121 | 0.900084 | 0.941982 | | | 0 | 0 | | | 0.433422 | 0.045625 | | | |
| Rho GTPase cycle Homo sapiens R-HSA-194840 | 1/122 | 0.901974 | 0.942447 | | | 0 | 0 | | | 0.429818 | 0.044344 | | | |
| RNA Polymerase II Transcription Homo sapiens R-HSA-73857 | 1/124 | 0.905647 | 0.943819 | | | 0 | 0 | | | 0.422786 | 0.0419 | | | |
| DNA Repair Homo sapiens R-HSA-73894 | 3/285 | 0.906182 | 0.943819 | | | 0 | 0 | | | 0.551651 | 0.054346 | | | |
| Cell Cycle Homo sapiens R-HSA-1640170 | 7/566 | 0.91063 | 0.946939 | | | 0 | 0 | | | 0.646989 | 0.06057 | | | |
| Influenza Viral RNA Transcription and Replication Homo sapiens R-HSA-168273 | 1/128 | 0.912587 | 0.947463 | | | 0 | 0 | | | 0.409386 | 0.037447 | | | |
| Host Interactions of HIV factors Homo sapiens R-HSA-162909 | 1/129 | 0.914241 | 0.947671 | | | 0 | 0 | | | 0.406167 | 0.036417 | | | |
| Cell-Cell communication Homo sapiens R-HSA-1500931 | 1/131 | 0.917456 | 0.949494 | | | 0 | 0 | | | 0.399877 | 0.03445 | | | |
| Cardiac conduction Homo sapiens R-HSA-5576891 | 1/135 | 0.923529 | 0.954265 | | | 0 | 0 | | | 0.387861 | 0.030855 | | | |
| Signaling by GPCR Homo sapiens R-HSA-372790 | 18/1293 | 0.930553 | 0.960001 | | | 0 | 0 | | | 0.723589 | 0.052081 | | | |
| G alpha (i) signalling events Homo sapiens R-HSA-418594 | 2/240 | 0.942159 | 0.970438 | | | 0 | 0 | | | 0.435582 | 0.025953 | | | |
| Organelle biogenesis and maintenance Homo sapiens R-HSA-1852241 | 3/326 | 0.946479 | 0.97335 | | | 0 | 0 | | | 0.480607 | 0.026437 | | | |
| Separation of Sister Chromatids Homo sapiens R-HSA-2467813 | 1/162 | 0.954367 | 0.979917 | | | 0 | 0 | | | 0.322369 | 0.015057 | | | |
| SLC-mediated transmembrane transport Homo sapiens R-HSA-425407 | 2/268 | 0.962947 | 0.983337 | | | 0 | 0 | | | 0.389168 | 0.014694 | | | |
| M Phase Homo sapiens R-HSA-68886 | 2/268 | 0.962947 | 0.983337 | | | 0 | 0 | | | 0.389168 | 0.014694 | | | |
| Mitotic Anaphase Homo sapiens R-HSA-68882 | 1/173 | 0.96303 | 0.983337 | | | 0 | 0 | | | 0.301581 | 0.011361 | | | |
| Mitotic Metaphase and Anaphase Homo sapiens R-HSA-2555396 | 1/174 | 0.963731 | 0.983337 | | | 0 | 0 | | | 0.299823 | 0.011076 | | | |
| Intra-Golgi and retrograde Golgi-to-ER traffic Homo sapiens R-HSA-6811442 | 1/179 | 0.967042 | 0.985174 | | | 0 | 0 | | | 0.291326 | 0.009763 | | | |
| Muscle contraction Homo sapiens R-HSA-397014 | 1/196 | 0.976204 | 0.992956 | | | 0 | 0 | | | 0.265696 | 0.006399 | | | |
| Ion channel transport Homo sapiens R-HSA-983712 | 1/203 | 0.979192 | 0.993014 | | | 0 | 0 | | | 0.256396 | 0.005391 | | | |
| Hemostasis Homo sapiens R-HSA-109582 | 5/552 | 0.979307 | 0.993014 | | | 0 | 0 | | | 0.470023 | 0.009828 | | | |
| Platelet activation. signaling and aggregation Homo sapiens R-HSA-76002 | 1/253 | 0.992031 | 0.999956 | | | 0 | 0 | | | 0.204995 | 0.00164 | | | |
| RHO GTPase Effectors Homo sapiens R-HSA-195258 | 1/255 | 0.992331 | 0.999956 | | | 0 | 0 | | | 0.20336 | 0.001565 | | | |
| Signaling by Rho GTPases Homo sapiens R-HSA-194315 | 2/367 | 0.992774 | 0.999956 | | | 0 | 0 | | | 0.282162 | 0.002046 | | | |
| Metabolism Homo sapiens R-HSA-1430728 | 23/1908 | 0.993784 | 0.999956 | | | 0 | 0 | | | 0.613156 | 0.003823 | | | |
| Transmembrane transport of small molecules Homo sapiens R-HSA-382551 | 4/594 | 0.996284 | 0.999956 | | | 0 | 0 | | | 0.346893 | 0.001292 | | | |
| Metabolism of amino acids and derivatives Homo sapiens R-HSA-71291 | 1/335 | 0.998356 | 0.999956 | | | 0 | 0 | | | 0.154012 | 2.53E-04 | | | |
| GPCR downstream signaling Homo sapiens R-HSA-388396 | 7/983 | 0.999447 | 0.999956 | | | 0 | 0 | | | 0.362455 | 2.01E-04 | | | |
| Metabolism of lipids and lipoproteins Homo sapiens R-HSA-556833 | 3/659 | 0.9997 | 0.999956 | | | 0 | 0 | | | 0.232557 | 6.98E-05 | | | |
| Metabolism of proteins Homo sapiens R-HSA-392499 | 6/1074 | 0.999956 | 0.999956 | | | 0 | 0 | | | 0.281749 | 1.24E-05 | | | |
|  |  |  |  | | |  |  | | |  |  | | | |
|  |  |  |  | | |  |  | | |  |  | | | |
| siLonp\_HS vs Ctrl | | | | | | | | | | | | | |
| Term | Overlap | P-value | | Adjusted P-value | Old P-value | | | Old Adjusted P-value | Odds Ratio | | | Combined Score |
| Attenuation phase Homo sapiens R-HSA-3371568 | 14/26 | 4.10E-17 | | 2.94E-14 | 0 | | | 0 | 53.2796 | | | 2010.43 |
| HSF1-dependent transactivation Homo sapiens R-HSA-3371571 | 14/34 | 5.03E-15 | | 1.80E-12 | 0 | | | 0 | 31.95467 | | | 1052.079 |
| HSF1 activation Homo sapiens R-HSA-3371511 | 13/29 | 1.24E-14 | | 2.96E-12 | 0 | | | 0 | 37.01136 | | | 1185.178 |
| Regulation of HSF1-mediated heat shock response Homo sapiens R-HSA-3371453 | 17/80 | 1.49E-12 | | 2.68E-10 | 0 | | | 0 | 12.37778 | | | 337.0594 |
| Cellular response to heat stress Homo sapiens R-HSA-3371556 | 18/96 | 3.15E-12 | | 4.52E-10 | 0 | | | 0 | 10.60232 | | | 280.7873 |
| Cellular responses to stress Homo sapiens R-HSA-2262752 | 30/367 | 8.46E-10 | | 1.01E-07 | 0 | | | 0 | 4.153078 | | | 86.75814 |
| Generic Transcription Pathway Homo sapiens R-HSA-212436 | 44/812 | 4.28E-08 | | 4.39E-06 | 0 | | | 0 | 2.7048 | | | 45.89384 |
| Senescence-Associated Secretory Phenotype (SASP) Homo sapiens R-HSA-2559582 | 9/77 | 4.95E-05 | | 0.00444 | 0 | | | 0 | 5.957411 | | | 59.06242 |
| Developmental Biology Homo sapiens R-HSA-1266738 | 34/786 | 1.60E-04 | | 0.012779 | 0 | | | 0 | 2.083998 | | | 18.21254 |
| Receptor-ligand binding initiates the second proteolytic cleavage of Notch receptor Homo sapiens R-HSA-156988 | 4/14 | 1.98E-04 | | 0.014184 | 0 | | | 0 | 17.85205 | | | 152.2695 |
| Negative regulation of MAPK pathway Homo sapiens R-HSA-5675221 | 6/40 | 2.29E-04 | | 0.01462 | 0 | | | 0 | 7.902321 | | | 66.24864 |
| Constitutive Signaling by NOTCH1 HD Domain Mutants Homo sapiens R-HSA-2691232 | 4/15 | 2.65E-04 | | 0.01462 | 0 | | | 0 | 16.22831 | | | 133.6712 |
| Signaling by NOTCH1 HD Domain Mutants in Cancer Homo sapiens R-HSA-2691230 | 4/15 | 2.65E-04 | | 0.01462 | 0 | | | 0 | 16.22831 | | | 133.6712 |
| NOTCH2 Activation and Transmission of Signal to the Nucleus Homo sapiens R-HSA-2979096 | 4/21 | 0.001045 | | 0.052789 | 0 | | | 0 | 10.49745 | | | 72.05277 |
| Gene Expression Homo sapiens R-HSA-74160 | 55/1631 | 0.001103 | | 0.052789 | 0 | | | 0 | 1.621562 | | | 11.04263 |
| RAF-independent MAPK1/3 activation Homo sapiens R-HSA-112409 | 4/23 | 0.001493 | | 0.066995 | 0 | | | 0 | 9.391492 | | | 61.11056 |
| ATF4 activates genes Homo sapiens R-HSA-380994 | 4/25 | 0.00206 | | 0.086993 | 0 | | | 0 | 8.496195 | | | 52.55055 |
| Downregulation of TGF-beta receptor signaling Homo sapiens R-HSA-2173788 | 4/26 | 0.002392 | | 0.095423 | 0 | | | 0 | 8.109589 | | | 48.94572 |
| Cellular Senescence Homo sapiens R-HSA-2559583 | 10/161 | 0.003152 | | 0.1136 | 0 | | | 0 | 2.975074 | | | 17.13573 |
| PERK regulates gene expression Homo sapiens R-HSA-381042 | 4/28 | 0.003164 | | 0.1136 | 0 | | | 0 | 7.433029 | | | 42.7831 |
| Amyloid fiber formation Homo sapiens R-HSA-977225 | 6/68 | 0.003882 | | 0.13273 | 0 | | | 0 | 4.327316 | | | 24.02261 |
| Activated NOTCH1 Transmits Signal to the Nucleus Homo sapiens R-HSA-2122948 | 4/30 | 0.004091 | | 0.133511 | 0 | | | 0 | 6.860555 | | | 37.7262 |
| TRAF6 mediated induction of TAK1 complex Homo sapiens R-HSA-937072 | 3/16 | 0.004846 | | 0.148915 | 0 | | | 0 | 10.27422 | | | 54.75814 |
| TGF-beta receptor signaling activates SMADs Homo sapiens R-HSA-2173789 | 4/32 | 0.005185 | | 0.148915 | 0 | | | 0 | 6.369863 | | | 33.51806 |
| Signaling by NOTCH2 Homo sapiens R-HSA-1980145 | 4/32 | 0.005185 | | 0.148915 | 0 | | | 0 | 6.369863 | | | 33.51806 |
| AUF1 (hnRNP D0) binds and destabilizes mRNA Homo sapiens R-HSA-450408 | 5/54 | 0.006701 | | 0.170622 | 0 | | | 0 | 4.55541 | | | 22.80221 |
| Activation of IRF3/IRF7 mediated by TBK1/IKK epsilon Homo sapiens R-HSA-936964 | 3/18 | 0.006834 | | 0.170622 | 0 | | | 0 | 8.903417 | | | 44.39144 |
| Scavenging by Class F Receptors Homo sapiens R-HSA-3000484 | 2/6 | 0.006891 | | 0.170622 | 0 | | | 0 | 22.22045 | | | 110.6018 |
| Uptake and function of diphtheria toxin Homo sapiens R-HSA-5336415 | 2/6 | 0.006891 | | 0.170622 | 0 | | | 0 | 22.22045 | | | 110.6018 |
| Constitutive Signaling by Ligand-Responsive EGFR Cancer Variants Homo sapiens R-HSA-1236382 | 3/19 | 0.007984 | | 0.175295 | 0 | | | 0 | 8.346526 | | | 40.31674 |
| Signaling by Ligand-Responsive EGFR Variants in Cancer Homo sapiens R-HSA-5637815 | 3/19 | 0.007984 | | 0.175295 | 0 | | | 0 | 8.346526 | | | 40.31674 |
| Signaling by EGFR in Cancer Homo sapiens R-HSA-1643713 | 3/19 | 0.007984 | | 0.175295 | 0 | | | 0 | 8.346526 | | | 40.31674 |
| Transcriptional regulation of white adipocyte differentiation Homo sapiens R-HSA-381340 | 6/79 | 0.008057 | | 0.175295 | 0 | | | 0 | 3.673181 | | | 17.70931 |
| Signaling by NOTCH1 t(7;9)(NOTCH1:M1580 K2555) Translocation Mutant Homo sapiens R-HSA-2660825 | 2/7 | 0.009508 | | 0.19504 | 0 | | | 0 | 17.77545 | | | 82.75666 |
| Constitutive Signaling by NOTCH1 t(7;9)(NOTCH1:M1580 K2555) Translocation Mutant Homo sapiens R-HSA-2660826 | 2/7 | 0.009508 | | 0.19504 | 0 | | | 0 | 17.77545 | | | 82.75666 |
| MAPK family signaling cascades Homo sapiens R-HSA-5683057 | 13/284 | 0.010919 | | 0.217765 | 0 | | | 0 | 2.156659 | | | 9.74225 |
| Regulation of mRNA stability by proteins that bind AU-rich elements Homo sapiens R-HSA-450531 | 6/86 | 0.011992 | | 0.22424 | 0 | | | 0 | 3.350573 | | | 14.82144 |
| VEGF ligand-receptor interactions Homo sapiens R-HSA-194313 | 2/8 | 0.012492 | | 0.22424 | 0 | | | 0 | 14.81212 | | | 64.91601 |
| VEGF binds to VEGFR leading to receptor dimerization Homo sapiens R-HSA-195399 | 2/8 | 0.012492 | | 0.22424 | 0 | | | 0 | 14.81212 | | | 64.91601 |
| Downregulation of ERBB4 signaling Homo sapiens R-HSA-1253288 | 2/8 | 0.012492 | | 0.22424 | 0 | | | 0 | 14.81212 | | | 64.91601 |
| Signaling by SCF-KIT Homo sapiens R-HSA-1433557 | 14/325 | 0.013816 | | 0.237299 | 0 | | | 0 | 2.024356 | | | 8.668212 |
| Signaling by VEGF Homo sapiens R-HSA-194138 | 14/328 | 0.014854 | | 0.237299 | 0 | | | 0 | 2.004703 | | | 8.438748 |
| IKK complex recruitment mediated by RIP1 Homo sapiens R-HSA-937041 | 3/24 | 0.015373 | | 0.237299 | 0 | | | 0 | 6.357631 | | | 26.54391 |
| Oxidative Stress Induced Senescence Homo sapiens R-HSA-2559580 | 6/91 | 0.015521 | | 0.237299 | 0 | | | 0 | 3.152671 | | | 13.1326 |
| PTK6 Regulates RTKs and Their Effectors AKT1 and DOK1 Homo sapiens R-HSA-8849469 | 2/9 | 0.015829 | | 0.237299 | 0 | | | 0 | 12.69545 | | | 52.6344 |
| MyD88:Mal cascade initiated on plasma membrane Homo sapiens R-HSA-166058 | 6/92 | 0.016305 | | 0.237299 | 0 | | | 0 | 3.115852 | | | 12.82575 |
| Toll Like Receptor TLR1:TLR2 Cascade Homo sapiens R-HSA-168179 | 6/92 | 0.016305 | | 0.237299 | 0 | | | 0 | 3.115852 | | | 12.82575 |
| Toll Like Receptor TLR6:TLR2 Cascade Homo sapiens R-HSA-168188 | 6/92 | 0.016305 | | 0.237299 | 0 | | | 0 | 3.115852 | | | 12.82575 |
| Toll Like Receptor 2 (TLR2) Cascade Homo sapiens R-HSA-181438 | 6/92 | 0.016305 | | 0.237299 | 0 | | | 0 | 3.115852 | | | 12.82575 |
| Signaling by ERBB2 Homo sapiens R-HSA-1227986 | 4/45 | 0.017174 | | 0.237299 | 0 | | | 0 | 4.347255 | | | 17.6688 |
| Regulation of Hypoxia-inducible Factor (HIF) by oxygen Homo sapiens R-HSA-1234174 | 3/26 | 0.019119 | | 0.237299 | 0 | | | 0 | 5.804199 | | | 22.96772 |
| Cellular response to hypoxia Homo sapiens R-HSA-2262749 | 3/26 | 0.019119 | | 0.237299 | 0 | | | 0 | 5.804199 | | | 22.96772 |
| Activation of PPARGC1A (PGC-1alpha) by phosphorylation Homo sapiens R-HSA-2151209 | 2/10 | 0.0195 | | 0.237299 | 0 | | | 0 | 11.10795 | | | 43.73608 |
| POU5F1 (OCT4). SOX2. NANOG repress genes related to differentiation Homo sapiens R-HSA-2892245 | 2/10 | 0.0195 | | 0.237299 | 0 | | | 0 | 11.10795 | | | 43.73608 |
| IRAK2 mediated activation of TAK1 complex upon TLR7/8 or 9 stimulation Homo sapiens R-HSA-975163 | 2/10 | 0.0195 | | 0.237299 | 0 | | | 0 | 11.10795 | | | 43.73608 |
| IRAK2 mediated activation of TAK1 complex Homo sapiens R-HSA-937042 | 2/10 | 0.0195 | | 0.237299 | 0 | | | 0 | 11.10795 | | | 43.73608 |
| Diseases of carbohydrate metabolism Homo sapiens R-HSA-5663084 | 2/10 | 0.0195 | | 0.237299 | 0 | | | 0 | 11.10795 | | | 43.73608 |
| Myoclonic epilepsy of Lafora Homo sapiens R-HSA-3785653 | 2/10 | 0.0195 | | 0.237299 | 0 | | | 0 | 11.10795 | | | 43.73608 |
| Glycogen storage diseases Homo sapiens R-HSA-3229121 | 2/10 | 0.0195 | | 0.237299 | 0 | | | 0 | 11.10795 | | | 43.73608 |
| Axon guidance Homo sapiens R-HSA-422475 | 19/515 | 0.021094 | | 0.251711 | 0 | | | 0 | 1.726235 | | | 6.66115 |
| Signaling by NOTCH1 Homo sapiens R-HSA-1980143 | 5/72 | 0.021521 | | 0.251711 | 0 | | | 0 | 3.328495 | | | 12.77719 |
| VEGFR2 mediated cell proliferation Homo sapiens R-HSA-5218921 | 11/248 | 0.022549 | | 0.251711 | 0 | | | 0 | 2.080639 | | | 7.889938 |
| Transcriptional Regulation by TP53 Homo sapiens R-HSA-3700989 | 14/348 | 0.023387 | | 0.251711 | 0 | | | 0 | 1.882702 | | | 7.070663 |
| Signaling by NOTCH3 Homo sapiens R-HSA-1980148 | 2/11 | 0.023488 | | 0.251711 | 0 | | | 0 | 9.873232 | | | 37.03698 |
| Signaling by NOTCH4 Homo sapiens R-HSA-1980150 | 2/11 | 0.023488 | | 0.251711 | 0 | | | 0 | 9.873232 | | | 37.03698 |
| Membrane binding and targetting of GAG proteins Homo sapiens R-HSA-174490 | 2/11 | 0.023488 | | 0.251711 | 0 | | | 0 | 9.873232 | | | 37.03698 |
| Synthesis And Processing Of GAG. GAGPOL Polyproteins Homo sapiens R-HSA-174495 | 2/11 | 0.023488 | | 0.251711 | 0 | | | 0 | 9.873232 | | | 37.03698 |
| Negative regulation of FGFR3 signaling Homo sapiens R-HSA-5654732 | 3/29 | 0.025598 | | 0.264466 | 0 | | | 0 | 5.133695 | | | 18.81614 |
| VEGFA-VEGFR2 Pathway Homo sapiens R-HSA-4420097 | 13/320 | 0.026378 | | 0.264466 | 0 | | | 0 | 1.900207 | | | 6.907711 |
| RNA Polymerase I Promoter Opening Homo sapiens R-HSA-73728 | 3/30 | 0.027988 | | 0.264466 | 0 | | | 0 | 4.943305 | | | 17.67712 |
| Fc epsilon receptor (FCERI) signaling Homo sapiens R-HSA-2454202 | 15/395 | 0.030333 | | 0.264466 | 0 | | | 0 | 1.772895 | | | 6.197202 |
| Packaging Of Telomere Ends Homo sapiens R-HSA-171306 | 3/31 | 0.030492 | | 0.264466 | 0 | | | 0 | 4.766515 | | | 16.63647 |
| Negative regulation of FGFR4 signaling Homo sapiens R-HSA-5654733 | 3/31 | 0.030492 | | 0.264466 | 0 | | | 0 | 4.766515 | | | 16.63647 |
| Interleukin-3. 5 and GM-CSF signaling Homo sapiens R-HSA-512988 | 11/261 | 0.031178 | | 0.264466 | 0 | | | 0 | 1.971118 | | | 6.835943 |
| p75NTR recruits signalling complexes Homo sapiens R-HSA-209543 | 2/13 | 0.032358 | | 0.264466 | 0 | | | 0 | 8.077273 | | | 27.71236 |
| NF-kB is activated and signals survival Homo sapiens R-HSA-209560 | 2/13 | 0.032358 | | 0.264466 | 0 | | | 0 | 8.077273 | | | 27.71236 |
| Assembly Of The HIV Virion Homo sapiens R-HSA-175474 | 2/13 | 0.032358 | | 0.264466 | 0 | | | 0 | 8.077273 | | | 27.71236 |
| Downregulation of ERBB2:ERBB3 signaling Homo sapiens R-HSA-1358803 | 2/13 | 0.032358 | | 0.264466 | 0 | | | 0 | 8.077273 | | | 27.71236 |
| DNA methylation Homo sapiens R-HSA-5334118 | 3/32 | 0.03311 | | 0.264466 | 0 | | | 0 | 4.601917 | | | 15.68291 |
| Oncogene Induced Senescence Homo sapiens R-HSA-2559585 | 3/32 | 0.03311 | | 0.264466 | 0 | | | 0 | 4.601917 | | | 15.68291 |
| SMAD2/SMAD3:SMAD4 heterotrimer regulates transcription Homo sapiens R-HSA-2173796 | 3/32 | 0.03311 | | 0.264466 | 0 | | | 0 | 4.601917 | | | 15.68291 |
| Negative regulation of FGFR1 signaling Homo sapiens R-HSA-5654726 | 3/32 | 0.03311 | | 0.264466 | 0 | | | 0 | 4.601917 | | | 15.68291 |
| NCAM signaling for neurite out-growth Homo sapiens R-HSA-375165 | 11/266 | 0.035052 | | 0.264466 | 0 | | | 0 | 1.931969 | | | 6.473885 |
| GRB2 events in EGFR signaling Homo sapiens R-HSA-179812 | 10/235 | 0.036703 | | 0.264466 | 0 | | | 0 | 1.988992 | | | 6.573416 |
| SHC1 events in EGFR signaling Homo sapiens R-HSA-180336 | 10/235 | 0.036703 | | 0.264466 | 0 | | | 0 | 1.988992 | | | 6.573416 |
| SOS-mediated signalling Homo sapiens R-HSA-112412 | 10/235 | 0.036703 | | 0.264466 | 0 | | | 0 | 1.988992 | | | 6.573416 |
| SHC1 events in ERBB4 signaling Homo sapiens R-HSA-1250347 | 10/235 | 0.036703 | | 0.264466 | 0 | | | 0 | 1.988992 | | | 6.573416 |
| RAF/MAP kinase cascade Homo sapiens R-HSA-5673001 | 10/235 | 0.036703 | | 0.264466 | 0 | | | 0 | 1.988992 | | | 6.573416 |
| Constitutive Signaling by NOTCH1 HD+PEST Domain Mutants Homo sapiens R-HSA-2894862 | 4/57 | 0.037112 | | 0.264466 | 0 | | | 0 | 3.360903 | | | 11.07021 |
| Signaling by NOTCH1 in Cancer Homo sapiens R-HSA-2644603 | 4/57 | 0.037112 | | 0.264466 | 0 | | | 0 | 3.360903 | | | 11.07021 |
| Signaling by NOTCH1 PEST Domain Mutants in Cancer Homo sapiens R-HSA-2644602 | 4/57 | 0.037112 | | 0.264466 | 0 | | | 0 | 3.360903 | | | 11.07021 |
| Constitutive Signaling by NOTCH1 PEST Domain Mutants Homo sapiens R-HSA-2644606 | 4/57 | 0.037112 | | 0.264466 | 0 | | | 0 | 3.360903 | | | 11.07021 |
| Signaling by NOTCH1 HD+PEST Domain Mutants in Cancer Homo sapiens R-HSA-2894858 | 4/57 | 0.037112 | | 0.264466 | 0 | | | 0 | 3.360903 | | | 11.07021 |
| FRS-mediated FGFR2 signaling Homo sapiens R-HSA-5654700 | 10/236 | 0.037607 | | 0.264466 | 0 | | | 0 | 1.980088 | | | 6.49581 |
| FRS-mediated FGFR4 signaling Homo sapiens R-HSA-5654712 | 10/236 | 0.037607 | | 0.264466 | 0 | | | 0 | 1.980088 | | | 6.49581 |
| FRS-mediated FGFR3 signaling Homo sapiens R-HSA-5654706 | 10/236 | 0.037607 | | 0.264466 | 0 | | | 0 | 1.980088 | | | 6.49581 |
| FRS-mediated FGFR1 signaling Homo sapiens R-HSA-5654693 | 10/236 | 0.037607 | | 0.264466 | 0 | | | 0 | 1.980088 | | | 6.49581 |
| Activated TLR4 signalling Homo sapiens R-HSA-166054 | 6/112 | 0.038102 | | 0.264466 | 0 | | | 0 | 2.525359 | | | 8.251554 |
| Activated PKN1 stimulates transcription of AR (androgen receptor) regulated genes KLK2 and KLK3 Homo sapiens R-HSA-5625886 | 3/34 | 0.038685 | | 0.264466 | 0 | | | 0 | 4.304578 | | | 13.9998 |
| Negative regulation of FGFR2 signaling Homo sapiens R-HSA-5654727 | 3/34 | 0.038685 | | 0.264466 | 0 | | | 0 | 4.304578 | | | 13.9998 |
| Formation of the beta-catenin:TCF transactivating complex Homo sapiens R-HSA-201722 | 4/58 | 0.039191 | | 0.264466 | 0 | | | 0 | 3.298495 | | | 10.68482 |
| Recruitment and ATM-mediated phosphorylation of repair and signaling proteins at DNA double strand breaks Homo sapiens R-HSA-5693565 | 4/58 | 0.039191 | | 0.264466 | 0 | | | 0 | 3.298495 | | | 10.68482 |
| ARMS-mediated activation Homo sapiens R-HSA-170984 | 10/239 | 0.040411 | | 0.264466 | 0 | | | 0 | 1.953845 | | | 6.269193 |
| Signalling to p38 via RIT and RIN Homo sapiens R-HSA-187706 | 10/239 | 0.040411 | | 0.264466 | 0 | | | 0 | 1.953845 | | | 6.269193 |
| DNA Damage/Telomere Stress Induced Senescence Homo sapiens R-HSA-2559586 | 4/59 | 0.041336 | | 0.264466 | 0 | | | 0 | 3.238356 | | | 10.31747 |
| DNA Double Strand Break Response Homo sapiens R-HSA-5693606 | 4/59 | 0.041336 | | 0.264466 | 0 | | | 0 | 3.238356 | | | 10.31747 |
| The role of GTSE1 in G2/M progression after G2 checkpoint Homo sapiens R-HSA-8852276 | 4/59 | 0.041336 | | 0.264466 | 0 | | | 0 | 3.238356 | | | 10.31747 |
| Frs2-mediated activation Homo sapiens R-HSA-170968 | 10/240 | 0.041377 | | 0.264466 | 0 | | | 0 | 1.94525 | | | 6.195666 |
| SIRT1 negatively regulates rRNA Expression Homo sapiens R-HSA-427359 | 3/35 | 0.04164 | | 0.264466 | 0 | | | 0 | 4.169846 | | | 13.2547 |
| Fanconi Anemia Pathway Homo sapiens R-HSA-6783310 | 3/35 | 0.04164 | | 0.264466 | 0 | | | 0 | 4.169846 | | | 13.2547 |
| Regulation of innate immune responses to cytosolic DNA Homo sapiens R-HSA-3134975 | 2/15 | 0.042317 | | 0.264466 | 0 | | | 0 | 6.833916 | | | 21.61276 |
| Association of licensing factors with the pre-replicative complex Homo sapiens R-HSA-69298 | 2/15 | 0.042317 | | 0.264466 | 0 | | | 0 | 6.833916 | | | 21.61276 |
| NRIF signals cell death from the nucleus Homo sapiens R-HSA-205043 | 2/15 | 0.042317 | | 0.264466 | 0 | | | 0 | 6.833916 | | | 21.61276 |
| Glycogen synthesis Homo sapiens R-HSA-3322077 | 2/15 | 0.042317 | | 0.264466 | 0 | | | 0 | 6.833916 | | | 21.61276 |
| MAPK1/MAPK3 signaling Homo sapiens R-HSA-5684996 | 10/241 | 0.042359 | | 0.264466 | 0 | | | 0 | 1.936728 | | | 6.123119 |
| Prolonged ERK activation events Homo sapiens R-HSA-169893 | 10/242 | 0.043356 | | 0.267231 | 0 | | | 0 | 1.928281 | | | 6.051536 |
| HDACs deacetylate histones Homo sapiens R-HSA-3214815 | 4/60 | 0.043546 | | 0.267231 | 0 | | | 0 | 3.180365 | | | 9.967065 |
| Signaling by Leptin Homo sapiens R-HSA-2586552 | 10/243 | 0.044369 | | 0.269503 | 0 | | | 0 | 1.919905 | | | 5.980901 |
| Interleukin receptor SHC signaling Homo sapiens R-HSA-912526 | 10/245 | 0.046444 | | 0.269503 | 0 | | | 0 | 1.903369 | | | 5.842415 |
| Activation of anterior HOX genes in hindbrain development during early embryogenesis Homo sapiens R-HSA-5617472 | 5/89 | 0.047345 | | 0.269503 | 0 | | | 0 | 2.652555 | | | 8.091067 |
| Activation of HOX genes during differentiation Homo sapiens R-HSA-5619507 | 5/89 | 0.047345 | | 0.269503 | 0 | | | 0 | 2.652555 | | | 8.091067 |
| Signalling to RAS Homo sapiens R-HSA-167044 | 10/246 | 0.047505 | | 0.269503 | 0 | | | 0 | 1.895206 | | | 5.774535 |
| TGF-beta receptor signaling in EMT (epithelial to mesenchymal transition) Homo sapiens R-HSA-2173791 | 2/16 | 0.04767 | | 0.269503 | 0 | | | 0 | 6.345455 | | | 19.31213 |
| Translesion synthesis by REV1 Homo sapiens R-HSA-110312 | 2/16 | 0.04767 | | 0.269503 | 0 | | | 0 | 6.345455 | | | 19.31213 |
| p75NTR signals via NF-kB Homo sapiens R-HSA-193639 | 2/16 | 0.04767 | | 0.269503 | 0 | | | 0 | 6.345455 | | | 19.31213 |
| Spry regulation of FGF signaling Homo sapiens R-HSA-1295596 | 2/16 | 0.04767 | | 0.269503 | 0 | | | 0 | 6.345455 | | | 19.31213 |
| MAP3K8 (TPL2)-dependent MAPK1/3 activation Homo sapiens R-HSA-5684264 | 2/16 | 0.04767 | | 0.269503 | 0 | | | 0 | 6.345455 | | | 19.31213 |
| G1 Phase Homo sapiens R-HSA-69236 | 3/38 | 0.05116 | | 0.284749 | 0 | | | 0 | 3.811845 | | | 11.33187 |
| Cyclin D associated events in G1 Homo sapiens R-HSA-69231 | 3/38 | 0.05116 | | 0.284749 | 0 | | | 0 | 3.811845 | | | 11.33187 |
| IRS-mediated signalling Homo sapiens R-HSA-112399 | 11/284 | 0.051789 | | 0.285346 | 0 | | | 0 | 1.802903 | | | 5.337646 |
| MAPK6/MAPK4 signaling Homo sapiens R-HSA-5687128 | 5/92 | 0.05323 | | 0.285346 | 0 | | | 0 | 2.560693 | | | 7.510849 |
| Unblocking of NMDA receptor. glutamate binding and activation Homo sapiens R-HSA-438066 | 2/17 | 0.053254 | | 0.285346 | 0 | | | 0 | 5.922121 | | | 17.36771 |
| Translesion synthesis by POLK Homo sapiens R-HSA-5655862 | 2/17 | 0.053254 | | 0.285346 | 0 | | | 0 | 5.922121 | | | 17.36771 |
| Translesion synthesis by POLI Homo sapiens R-HSA-5656121 | 2/17 | 0.053254 | | 0.285346 | 0 | | | 0 | 5.922121 | | | 17.36771 |
| Toll Like Receptor 4 (TLR4) Cascade Homo sapiens R-HSA-166016 | 6/122 | 0.053808 | | 0.285837 | 0 | | | 0 | 2.306469 | | | 6.740253 |
| Interleukin-2 signaling Homo sapiens R-HSA-451927 | 10/252 | 0.054216 | | 0.285837 | 0 | | | 0 | 1.847643 | | | 5.385457 |
| Insulin receptor signalling cascade Homo sapiens R-HSA-74751 | 11/287 | 0.055024 | | 0.285837 | 0 | | | 0 | 1.783029 | | | 5.170746 |
| Signalling to ERKs Homo sapiens R-HSA-187687 | 10/253 | 0.055393 | | 0.285837 | 0 | | | 0 | 1.839944 | | | 5.323521 |
| IGF1R signaling cascade Homo sapiens R-HSA-2428924 | 11/288 | 0.056132 | | 0.285837 | 0 | | | 0 | 1.7765 | | | 5.116398 |
| Signaling by Type 1 Insulin-like Growth Factor 1 Receptor (IGF1R) Homo sapiens R-HSA-2404192 | 11/288 | 0.056132 | | 0.285837 | 0 | | | 0 | 1.7765 | | | 5.116398 |
| IRS-related events triggered by IGF1R Homo sapiens R-HSA-2428928 | 11/288 | 0.056132 | | 0.285837 | 0 | | | 0 | 1.7765 | | | 5.116398 |
| FCERI mediated MAPK activation Homo sapiens R-HSA-2871796 | 11/289 | 0.057255 | | 0.2895 | 0 | | | 0 | 1.770018 | | | 5.062678 |
| PRC2 methylates histones and DNA Homo sapiens R-HSA-212300 | 3/40 | 0.058039 | | 0.291414 | 0 | | | 0 | 3.60543 | | | 10.26334 |
| Oxygen-dependent proline hydroxylation of Hypoxia-inducible Factor Alpha Homo sapiens R-HSA-1234176 | 2/18 | 0.059056 | | 0.294462 | 0 | | | 0 | 5.551705 | | | 15.70723 |
| Condensation of Prophase Chromosomes Homo sapiens R-HSA-2299718 | 3/41 | 0.061634 | | 0.304548 | 0 | | | 0 | 3.51037 | | | 9.781775 |
| Downstream signaling of activated FGFR2 Homo sapiens R-HSA-5654696 | 12/329 | 0.062776 | | 0.304548 | 0 | | | 0 | 1.693874 | | | 4.688955 |
| Downstream signaling of activated FGFR4 Homo sapiens R-HSA-5654716 | 12/329 | 0.062776 | | 0.304548 | 0 | | | 0 | 1.693874 | | | 4.688955 |
| Downstream signaling of activated FGFR3 Homo sapiens R-HSA-5654708 | 12/329 | 0.062776 | | 0.304548 | 0 | | | 0 | 1.693874 | | | 4.688955 |
| Signaling by ERBB4 Homo sapiens R-HSA-1236394 | 12/330 | 0.063912 | | 0.30798 | 0 | | | 0 | 1.68846 | | | 4.643676 |
| Regulation of TP53 Activity through Methylation Homo sapiens R-HSA-6804760 | 2/19 | 0.065065 | | 0.308601 | 0 | | | 0 | 5.224866 | | | 14.27626 |
| Translesion Synthesis by POLH Homo sapiens R-HSA-110320 | 2/19 | 0.065065 | | 0.308601 | 0 | | | 0 | 5.224866 | | | 14.27626 |
| Deactivation of the beta-catenin transactivating complex Homo sapiens R-HSA-3769402 | 3/42 | 0.065331 | | 0.308601 | 0 | | | 0 | 3.420186 | | | 9.331275 |
| Signaling by FGFR4 Homo sapiens R-HSA-5654743 | 12/332 | 0.066225 | | 0.308766 | 0 | | | 0 | 1.677733 | | | 4.554524 |
| Downstream signaling of activated FGFR1 Homo sapiens R-HSA-5654687 | 12/332 | 0.066225 | | 0.308766 | 0 | | | 0 | 1.677733 | | | 4.554524 |
| Signaling by FGFR3 Homo sapiens R-HSA-5654741 | 12/333 | 0.067402 | | 0.312225 | 0 | | | 0 | 1.672419 | | | 4.510639 |
| TP53 Regulates Transcription of Cell Death Genes Homo sapiens R-HSA-5633008 | 3/43 | 0.069126 | | 0.316132 | 0 | | | 0 | 3.33451 | | | 8.909211 |
| ERCC6 (CSB) and EHMT2 (G9a) positively regulate rRNA expression Homo sapiens R-HSA-427389 | 3/43 | 0.069126 | | 0.316132 | 0 | | | 0 | 3.33451 | | | 8.909211 |
| Signaling by FGFR1 Homo sapiens R-HSA-5654736 | 12/336 | 0.071015 | | 0.321825 | 0 | | | 0 | 1.656675 | | | 4.381684 |
| Regulation of gene expression in beta cells Homo sapiens R-HSA-210745 | 2/20 | 0.071268 | | 0.321825 | 0 | | | 0 | 4.934343 | | | 13.03314 |
| Transcriptional activity of SMAD2/SMAD3:SMAD4 heterotrimer Homo sapiens R-HSA-2173793 | 3/44 | 0.07302 | | 0.32564 | 0 | | | 0 | 3.253014 | | | 8.513226 |
| Interleukin-1 signaling Homo sapiens R-HSA-446652 | 3/44 | 0.07302 | | 0.32564 | 0 | | | 0 | 3.253014 | | | 8.513226 |
| Downstream signal transduction Homo sapiens R-HSA-186763 | 12/341 | 0.07731 | | 0.337909 | 0 | | | 0 | 1.631074 | | | 4.175443 |
| Regulation of FZD by ubiquitination Homo sapiens R-HSA-4641263 | 2/21 | 0.077653 | | 0.337909 | 0 | | | 0 | 4.674402 | | | 11.94545 |
| TP53 regulates transcription of additional cell cycle genes whose exact role in the p53 pathway remain uncertain Homo sapiens R-HSA-6804115 | 2/21 | 0.077653 | | 0.337909 | 0 | | | 0 | 4.674402 | | | 11.94545 |
| Aflatoxin activation and detoxification Homo sapiens R-HSA-5423646 | 2/21 | 0.077653 | | 0.337909 | 0 | | | 0 | 4.674402 | | | 11.94545 |
| Signaling by TGF-beta Receptor Complex Homo sapiens R-HSA-170834 | 4/73 | 0.07813 | | 0.337934 | 0 | | | 0 | 2.579445 | | | 6.576004 |
| DAP12 signaling Homo sapiens R-HSA-2424491 | 12/344 | 0.081252 | | 0.349336 | 0 | | | 0 | 1.616083 | | | 4.056689 |
| SALM protein interactions at the synapse Homo sapiens R-HSA-8849932 | 2/22 | 0.08421 | | 0.355664 | 0 | | | 0 | 4.440455 | | | 10.98764 |
| Pink/Parkin Mediated Mitophagy Homo sapiens R-HSA-5205685 | 2/22 | 0.08421 | | 0.355664 | 0 | | | 0 | 4.440455 | | | 10.98764 |
| Mitophagy Homo sapiens R-HSA-5205647 | 2/22 | 0.08421 | | 0.355664 | 0 | | | 0 | 4.440455 | | | 10.98764 |
| NOTCH1 Intracellular Domain Regulates Transcription Homo sapiens R-HSA-2122947 | 3/47 | 0.085266 | | 0.358016 | 0 | | | 0 | 3.030752 | | | 7.461663 |
| Signaling by Insulin receptor Homo sapiens R-HSA-74752 | 11/311 | 0.085773 | | 0.358054 | 0 | | | 0 | 1.638345 | | | 4.023852 |
| TP53 Regulates Transcription of Cell Cycle Genes Homo sapiens R-HSA-6791312 | 3/48 | 0.08953 | | 0.36885 | 0 | | | 0 | 2.96325 | | | 7.150875 |
| Toll-Like Receptors Cascades Homo sapiens R-HSA-168898 | 6/140 | 0.090682 | | 0.36885 | 0 | | | 0 | 1.994797 | | | 4.788293 |
| Gap-filling DNA repair synthesis and ligation in GG-NER Homo sapiens R-HSA-5696397 | 2/23 | 0.090928 | | 0.36885 | 0 | | | 0 | 4.228788 | | | 10.13931 |
| Downregulation of SMAD2/3:SMAD4 transcriptional activity Homo sapiens R-HSA-2173795 | 2/23 | 0.090928 | | 0.36885 | 0 | | | 0 | 4.228788 | | | 10.13931 |
| APC/C:Cdc20 mediated degradation of Cyclin B Homo sapiens R-HSA-174048 | 2/23 | 0.090928 | | 0.36885 | 0 | | | 0 | 4.228788 | | | 10.13931 |
| Signaling by EGFR Homo sapiens R-HSA-177929 | 12/355 | 0.096776 | | 0.387945 | 0 | | | 0 | 1.56336 | | | 3.650999 |
| RNA Polymerase I Transcription Homo sapiens R-HSA-73864 | 4/79 | 0.097602 | | 0.387945 | 0 | | | 0 | 2.372359 | | | 5.52014 |
| Glucose metabolism Homo sapiens R-HSA-70326 | 4/79 | 0.097602 | | 0.387945 | 0 | | | 0 | 2.372359 | | | 5.52014 |
| Endogenous sterols Homo sapiens R-HSA-211976 | 2/24 | 0.097797 | | 0.387945 | 0 | | | 0 | 4.036364 | | | 9.383998 |
| HDR through Homologous Recombination (HR) or Single Strand Annealing (SSA) Homo sapiens R-HSA-5693567 | 5/112 | 0.10271 | | 0.390061 | 0 | | | 0 | 2.07992 | | | 4.73358 |
| DAP12 interactions Homo sapiens R-HSA-2172127 | 12/359 | 0.102838 | | 0.390061 | 0 | | | 0 | 1.545017 | | | 3.514289 |
| Processing of DNA double-strand break ends Homo sapiens R-HSA-5693607 | 4/81 | 0.104552 | | 0.390061 | 0 | | | 0 | 2.310502 | | | 5.217287 |
| Constitutive Signaling by AKT1 E17K in Cancer Homo sapiens R-HSA-5674400 | 2/25 | 0.104806 | | 0.390061 | 0 | | | 0 | 3.860672 | | | 8.708299 |
| Budding and maturation of HIV virion Homo sapiens R-HSA-162588 | 2/25 | 0.104806 | | 0.390061 | 0 | | | 0 | 3.860672 | | | 8.708299 |
| APC-Cdc20 mediated degradation of Nek2A Homo sapiens R-HSA-179409 | 2/25 | 0.104806 | | 0.390061 | 0 | | | 0 | 3.860672 | | | 8.708299 |
| Abacavir metabolism Homo sapiens R-HSA-2161541 | 1/5 | 0.105732 | | 0.390061 | 0 | | | 0 | 11.08503 | | | 24.90634 |
| Na+-dependent glucose transporters Homo sapiens R-HSA-428808 | 1/5 | 0.105732 | | 0.390061 | 0 | | | 0 | 11.08503 | | | 24.90634 |
| The fatty acid cycling model Homo sapiens R-HSA-167826 | 1/5 | 0.105732 | | 0.390061 | 0 | | | 0 | 11.08503 | | | 24.90634 |
| The proton buffering model Homo sapiens R-HSA-167827 | 1/5 | 0.105732 | | 0.390061 | 0 | | | 0 | 11.08503 | | | 24.90634 |
| Mitochondrial Uncoupling Proteins Homo sapiens R-HSA-166187 | 1/5 | 0.105732 | | 0.390061 | 0 | | | 0 | 11.08503 | | | 24.90634 |
| Signaling by FGFR2 Homo sapiens R-HSA-5654738 | 12/361 | 0.105953 | | 0.390061 | 0 | | | 0 | 1.536003 | | | 3.447961 |
| Diseases of signal transduction Homo sapiens R-HSA-5663202 | 10/288 | 0.107359 | | 0.390061 | 0 | | | 0 | 1.605382 | | | 3.582539 |
| Deposition of new CENPA-containing nucleosomes at the centromere Homo sapiens R-HSA-606279 | 3/52 | 0.107439 | | 0.390061 | 0 | | | 0 | 2.720794 | | | 6.069644 |
| Nucleosome assembly Homo sapiens R-HSA-774815 | 3/52 | 0.107439 | | 0.390061 | 0 | | | 0 | 2.720794 | | | 6.069644 |
| Toll Like Receptor 10 (TLR10) Cascade Homo sapiens R-HSA-168142 | 4/82 | 0.108109 | | 0.390061 | 0 | | | 0 | 2.280763 | | | 5.073824 |
| Toll Like Receptor 5 (TLR5) Cascade Homo sapiens R-HSA-168176 | 4/82 | 0.108109 | | 0.390061 | 0 | | | 0 | 2.280763 | | | 5.073824 |
| MyD88 cascade initiated on plasma membrane Homo sapiens R-HSA-975871 | 4/82 | 0.108109 | | 0.390061 | 0 | | | 0 | 2.280763 | | | 5.073824 |
| Signaling by PDGF Homo sapiens R-HSA-186797 | 12/364 | 0.110728 | | 0.397514 | 0 | | | 0 | 1.522674 | | | 3.350917 |
| TRAF6 mediated induction of NFkB and MAP kinases upon TLR7/8 or 9 activation Homo sapiens R-HSA-975138 | 4/83 | 0.11172 | | 0.399079 | 0 | | | 0 | 2.251777 | | | 4.935355 |
| Signaling by FGFR Homo sapiens R-HSA-190236 | 12/366 | 0.11398 | | 0.405138 | 0 | | | 0 | 1.513914 | | | 3.287811 |
| TP53 Regulates Metabolic Genes Homo sapiens R-HSA-5628897 | 4/84 | 0.115384 | | 0.408108 | 0 | | | 0 | 2.223516 | | | 4.801656 |
| Meiotic recombination Homo sapiens R-HSA-912446 | 3/54 | 0.116874 | | 0.409533 | 0 | | | 0 | 2.613828 | | | 5.610989 |
| MyD88 dependent cascade initiated on endosome Homo sapiens R-HSA-975155 | 4/85 | 0.119101 | | 0.409533 | 0 | | | 0 | 2.195952 | | | 4.67252 |
| Toll Like Receptor 7/8 (TLR7/8) Cascade Homo sapiens R-HSA-168181 | 4/85 | 0.119101 | | 0.409533 | 0 | | | 0 | 2.195952 | | | 4.67252 |
| Uptake and actions of bacterial toxins Homo sapiens R-HSA-5339562 | 2/27 | 0.119209 | | 0.409533 | 0 | | | 0 | 3.551455 | | | 7.553496 |
| EGFR downregulation Homo sapiens R-HSA-182971 | 2/27 | 0.119209 | | 0.409533 | 0 | | | 0 | 3.551455 | | | 7.553496 |
| Synthesis of bile acids and bile salts Homo sapiens R-HSA-192105 | 2/27 | 0.119209 | | 0.409533 | 0 | | | 0 | 3.551455 | | | 7.553496 |
| Homology Directed Repair Homo sapiens R-HSA-5693538 | 5/118 | 0.120864 | | 0.413241 | 0 | | | 0 | 1.968875 | | | 4.1604 |
| Hh mutants that don't undergo autocatalytic processing are degraded by ERAD Homo sapiens R-HSA-5362768 | 3/55 | 0.121705 | | 0.414142 | 0 | | | 0 | 2.563431 | | | 5.398989 |
| Unfolded Protein Response (UPR) Homo sapiens R-HSA-381119 | 4/86 | 0.122868 | | 0.414175 | 0 | | | 0 | 2.169061 | | | 4.547749 |
| PI3K/AKT Signaling in Cancer Homo sapiens R-HSA-2219528 | 4/86 | 0.122868 | | 0.414175 | 0 | | | 0 | 2.169061 | | | 4.547749 |
| Recognition of DNA damage by PCNA-containing replication complex Homo sapiens R-HSA-110314 | 2/28 | 0.126585 | | 0.419173 | 0 | | | 0 | 3.414685 | | | 7.057607 |
| Endosomal Sorting Complex Required For Transport (ESCRT) Homo sapiens R-HSA-917729 | 2/28 | 0.126585 | | 0.419173 | 0 | | | 0 | 3.414685 | | | 7.057607 |
| Chemokine receptors bind chemokines Homo sapiens R-HSA-380108 | 3/56 | 0.126607 | | 0.419173 | 0 | | | 0 | 2.514935 | | | 5.197534 |
| Regulation of PLK1 Activity at G2/M Transition Homo sapiens R-HSA-2565942 | 4/87 | 0.126686 | | 0.419173 | 0 | | | 0 | 2.142818 | | | 4.427156 |
| NGF signalling via TRKA from the plasma membrane Homo sapiens R-HSA-187037 | 12/374 | 0.127537 | | 0.420052 | 0 | | | 0 | 1.479841 | | | 3.047511 |
| Toll Like Receptor 9 (TLR9) Cascade Homo sapiens R-HSA-168138 | 4/88 | 0.130553 | | 0.425557 | 0 | | | 0 | 2.117199 | | | 4.310564 |
| Meiotic synapsis Homo sapiens R-HSA-1221632 | 3/57 | 0.131579 | | 0.425557 | 0 | | | 0 | 2.468236 | | | 5.005947 |
| RNA Polymerase I Chain Elongation Homo sapiens R-HSA-73777 | 3/57 | 0.131579 | | 0.425557 | 0 | | | 0 | 2.468236 | | | 5.005947 |
| Hh mutants abrogate ligand secretion Homo sapiens R-HSA-5387390 | 3/57 | 0.131579 | | 0.425557 | 0 | | | 0 | 2.468236 | | | 5.005947 |
| Signaling by NOTCH Homo sapiens R-HSA-157118 | 5/122 | 0.133744 | | 0.430232 | 0 | | | 0 | 1.901172 | | | 3.824827 |
| Downstream signaling events of B Cell Receptor (BCR) Homo sapiens R-HSA-1168372 | 7/192 | 0.134223 | | 0.430232 | 0 | | | 0 | 1.685132 | | | 3.384173 |
| B-WICH complex positively regulates rRNA expression Homo sapiens R-HSA-5250924 | 3/58 | 0.136618 | | 0.435964 | 0 | | | 0 | 2.423235 | | | 4.823604 |
| Termination of translesion DNA synthesis Homo sapiens R-HSA-5656169 | 2/30 | 0.141643 | | 0.446302 | 0 | | | 0 | 3.170455 | | | 6.196487 |
| Telomere Maintenance Homo sapiens R-HSA-157579 | 3/59 | 0.141723 | | 0.446302 | 0 | | | 0 | 2.379841 | | | 4.649929 |
| SCF(Skp2)-mediated degradation of p27/p21 Homo sapiens R-HSA-187577 | 3/59 | 0.141723 | | 0.446302 | 0 | | | 0 | 2.379841 | | | 4.649929 |
| Inositol transporters Homo sapiens R-HSA-429593 | 1/7 | 0.144833 | | 0.45213 | 0 | | | 0 | 7.389267 | | | 14.27736 |
| PTK6 promotes HIF1A stabilization Homo sapiens R-HSA-8857538 | 1/7 | 0.144833 | | 0.45213 | 0 | | | 0 | 7.389267 | | | 14.27736 |
| Phase 1 - Functionalization of compounds Homo sapiens R-HSA-211945 | 4/92 | 0.146497 | | 0.452648 | 0 | | | 0 | 2.020548 | | | 3.880973 |
| RHO GTPases activate PKNs Homo sapiens R-HSA-5625740 | 3/60 | 0.14689 | | 0.452648 | 0 | | | 0 | 2.337969 | | | 4.484392 |
| MAP kinase activation in TLR cascade Homo sapiens R-HSA-450294 | 3/60 | 0.14689 | | 0.452648 | 0 | | | 0 | 2.337969 | | | 4.484392 |
| HS-GAG biosynthesis Homo sapiens R-HSA-2022928 | 2/31 | 0.149308 | | 0.456184 | 0 | | | 0 | 3.060972 | | | 5.82118 |
| Regulation of TNFR1 signaling Homo sapiens R-HSA-5357905 | 2/31 | 0.149308 | | 0.456184 | 0 | | | 0 | 3.060972 | | | 5.82118 |
| Biological oxidations Homo sapiens R-HSA-211859 | 7/199 | 0.15286 | | 0.465058 | 0 | | | 0 | 1.623108 | | | 3.048572 |
| Regulation of beta-cell development Homo sapiens R-HSA-186712 | 2/32 | 0.157055 | | 0.466525 | 0 | | | 0 | 2.958788 | | | 5.477192 |
| EPH-Ephrin signaling Homo sapiens R-HSA-2682334 | 4/95 | 0.158925 | | 0.466525 | 0 | | | 0 | 1.953635 | | | 3.593372 |
| Signaling by Interleukins Homo sapiens R-HSA-449147 | 12/392 | 0.16115 | | 0.466525 | 0 | | | 0 | 1.408421 | | | 2.57096 |
| Circadian Clock Homo sapiens R-HSA-400253 | 3/63 | 0.162745 | | 0.466525 | 0 | | | 0 | 2.220729 | | | 4.031885 |
| p53-Dependent G1/S DNA damage checkpoint Homo sapiens R-HSA-69580 | 3/63 | 0.162745 | | 0.466525 | 0 | | | 0 | 2.220729 | | | 4.031885 |
| p53-Dependent G1 DNA Damage Response Homo sapiens R-HSA-69563 | 3/63 | 0.162745 | | 0.466525 | 0 | | | 0 | 2.220729 | | | 4.031885 |
| Asymmetric localization of PCP proteins Homo sapiens R-HSA-4608870 | 3/63 | 0.162745 | | 0.466525 | 0 | | | 0 | 2.220729 | | | 4.031885 |
| Gastrin-CREB signalling pathway via PKC and MAPK Homo sapiens R-HSA-881907 | 13/432 | 0.162904 | | 0.466525 | 0 | | | 0 | 1.384176 | | | 2.511714 |
| Erythrocytes take up oxygen and release carbon dioxide Homo sapiens R-HSA-1247673 | 1/8 | 0.163739 | | 0.466525 | 0 | | | 0 | 6.333333 | | | 11.46006 |
| Sema4D mediated inhibition of cell attachment and migration Homo sapiens R-HSA-416550 | 1/8 | 0.163739 | | 0.466525 | 0 | | | 0 | 6.333333 | | | 11.46006 |
| Terminal pathway of complement Homo sapiens R-HSA-166665 | 1/8 | 0.163739 | | 0.466525 | 0 | | | 0 | 6.333333 | | | 11.46006 |
| Release of Hh-Np from the secreting cell Homo sapiens R-HSA-5362798 | 1/8 | 0.163739 | | 0.466525 | 0 | | | 0 | 6.333333 | | | 11.46006 |
| Ligand-receptor interactions Homo sapiens R-HSA-5632681 | 1/8 | 0.163739 | | 0.466525 | 0 | | | 0 | 6.333333 | | | 11.46006 |
| AMPK inhibits chREBP transcriptional activation activity Homo sapiens R-HSA-163680 | 1/8 | 0.163739 | | 0.466525 | 0 | | | 0 | 6.333333 | | | 11.46006 |
| NR1D1 (REV-ERBA) represses gene expression Homo sapiens R-HSA-1368071 | 1/8 | 0.163739 | | 0.466525 | 0 | | | 0 | 6.333333 | | | 11.46006 |
| Synthesis of epoxy (EET) and dihydroxyeicosatrienoic acids (DHET) Homo sapiens R-HSA-2142670 | 1/8 | 0.163739 | | 0.466525 | 0 | | | 0 | 6.333333 | | | 11.46006 |
| Visual phototransduction Homo sapiens R-HSA-2187338 | 4/97 | 0.167418 | | 0.467927 | 0 | | | 0 | 1.911425 | | | 3.416212 |
| MyD88-independent TLR3/TLR4 cascade Homo sapiens R-HSA-166166 | 4/97 | 0.167418 | | 0.467927 | 0 | | | 0 | 1.911425 | | | 3.416212 |
| Toll Like Receptor 3 (TLR3) Cascade Homo sapiens R-HSA-168164 | 4/97 | 0.167418 | | 0.467927 | 0 | | | 0 | 1.911425 | | | 3.416212 |
| TRIF-mediated TLR3/TLR4 signaling Homo sapiens R-HSA-937061 | 4/97 | 0.167418 | | 0.467927 | 0 | | | 0 | 1.911425 | | | 3.416212 |
| HDR through Homologous Recombination (HRR) Homo sapiens R-HSA-5685942 | 3/64 | 0.168141 | | 0.467927 | 0 | | | 0 | 2.184212 | | | 3.894347 |
| Hedgehog ligand biogenesis Homo sapiens R-HSA-5358346 | 3/64 | 0.168141 | | 0.467927 | 0 | | | 0 | 2.184212 | | | 3.894347 |
| EPHA-mediated growth cone collapse Homo sapiens R-HSA-3928663 | 2/34 | 0.172762 | | 0.477089 | 0 | | | 0 | 2.77358 | | | 4.869965 |
| Negative regulators of RIG-I/MDA5 signaling Homo sapiens R-HSA-936440 | 2/34 | 0.172762 | | 0.477089 | 0 | | | 0 | 2.77358 | | | 4.869965 |
| G1/S DNA Damage Checkpoints Homo sapiens R-HSA-69615 | 3/65 | 0.173588 | | 0.477533 | 0 | | | 0 | 2.148872 | | | 3.762829 |
| Activation of NF-kappaB in B cells Homo sapiens R-HSA-1169091 | 3/66 | 0.179084 | | 0.479265 | 0 | | | 0 | 2.114655 | | | 3.636997 |
| Lysosome Vesicle Biogenesis Homo sapiens R-HSA-432720 | 2/35 | 0.180709 | | 0.479265 | 0 | | | 0 | 2.689394 | | | 4.601201 |
| Bile acid and bile salt metabolism Homo sapiens R-HSA-194068 | 2/35 | 0.180709 | | 0.479265 | 0 | | | 0 | 2.689394 | | | 4.601201 |
| Regulation of TP53 Degradation Homo sapiens R-HSA-6804757 | 2/35 | 0.180709 | | 0.479265 | 0 | | | 0 | 2.689394 | | | 4.601201 |
| Sperm Motility And Taxes Homo sapiens R-HSA-1300642 | 1/9 | 0.182227 | | 0.479265 | 0 | | | 0 | 5.541383 | | | 9.434205 |
| CHL1 interactions Homo sapiens R-HSA-447041 | 1/9 | 0.182227 | | 0.479265 | 0 | | | 0 | 5.541383 | | | 9.434205 |
| Ca2+ activated K+ channels Homo sapiens R-HSA-1296052 | 1/9 | 0.182227 | | 0.479265 | 0 | | | 0 | 5.541383 | | | 9.434205 |
| Prostanoid ligand receptors Homo sapiens R-HSA-391908 | 1/9 | 0.182227 | | 0.479265 | 0 | | | 0 | 5.541383 | | | 9.434205 |
| AKT phosphorylates targets in the nucleus Homo sapiens R-HSA-198693 | 1/9 | 0.182227 | | 0.479265 | 0 | | | 0 | 5.541383 | | | 9.434205 |
| Synthesis of (16-20)-hydroxyeicosatetraenoic acids (HETE) Homo sapiens R-HSA-2142816 | 1/9 | 0.182227 | | 0.479265 | 0 | | | 0 | 5.541383 | | | 9.434205 |
| Highly calcium permeable nicotinic acetylcholine receptors Homo sapiens R-HSA-629597 | 1/9 | 0.182227 | | 0.479265 | 0 | | | 0 | 5.541383 | | | 9.434205 |
| EGFR Transactivation by Gastrin Homo sapiens R-HSA-2179392 | 1/9 | 0.182227 | | 0.479265 | 0 | | | 0 | 5.541383 | | | 9.434205 |
| Semaphorin interactions Homo sapiens R-HSA-373755 | 3/67 | 0.184627 | | 0.480928 | 0 | | | 0 | 2.081506 | | | 3.516535 |
| Signaling by PTK6 Homo sapiens R-HSA-8848021 | 3/67 | 0.184627 | | 0.480928 | 0 | | | 0 | 2.081506 | | | 3.516535 |
| Gene Silencing by RNA Homo sapiens R-HSA-211000 | 4/101 | 0.184869 | | 0.480928 | 0 | | | 0 | 1.832227 | | | 3.092996 |
| Regulation of TP53 Expression and Degradation Homo sapiens R-HSA-6806003 | 2/36 | 0.188709 | | 0.488811 | 0 | | | 0 | 2.61016 | | | 4.352572 |
| Cyclin E associated events during G1/S transition Homo sapiens R-HSA-69202 | 3/68 | 0.190215 | | 0.488811 | 0 | | | 0 | 2.049378 | | | 3.401153 |
| Cyclin A:Cdk2-associated events at S phase entry Homo sapiens R-HSA-69656 | 3/69 | 0.195845 | | 0.488811 | 0 | | | 0 | 2.018223 | | | 3.290577 |
| NCAM1 interactions Homo sapiens R-HSA-419037 | 2/37 | 0.196756 | | 0.488811 | 0 | | | 0 | 2.535455 | | | 4.122114 |
| Translesion synthesis by Y family DNA polymerases bypasses lesions on DNA template Homo sapiens R-HSA-110313 | 2/37 | 0.196756 | | 0.488811 | 0 | | | 0 | 2.535455 | | | 4.122114 |
| Abacavir transport and metabolism Homo sapiens R-HSA-2161522 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| eNOS activation Homo sapiens R-HSA-203615 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| Tetrahydrobiopterin (BH4) synthesis. recycling. salvage and regulation Homo sapiens R-HSA-1474151 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| ATF6-alpha activates chaperone genes Homo sapiens R-HSA-381183 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| Regulation of signaling by NODAL Homo sapiens R-HSA-1433617 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| Glycoprotein hormones Homo sapiens R-HSA-209822 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| SLBP independent Processing of Histone Pre-mRNAs Homo sapiens R-HSA-111367 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| Regulation of gene expression by Hypoxia-inducible Factor Homo sapiens R-HSA-1234158 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| Signaling by FGFR3 fusions in cancer Homo sapiens R-HSA-8853334 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| Activation of the AP-1 family of transcription factors Homo sapiens R-HSA-450341 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| IRAK1 recruits IKK complex Homo sapiens R-HSA-937039 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| IRAK1 recruits IKK complex upon TLR7/8 or 9 stimulation Homo sapiens R-HSA-975144 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| TRIF-mediated programmed cell death Homo sapiens R-HSA-2562578 | 1/10 | 0.200308 | | 0.488811 | 0 | | | 0 | 4.925422 | | | 7.919575 |
| Switching of origins to a post-replicative state Homo sapiens R-HSA-69052 | 3/70 | 0.201515 | | 0.488811 | 0 | | | 0 | 1.987999 | | | 3.184554 |
| Orc1 removal from chromatin Homo sapiens R-HSA-68949 | 3/70 | 0.201515 | | 0.488811 | 0 | | | 0 | 1.987999 | | | 3.184554 |
| DNA Replication Homo sapiens R-HSA-69306 | 4/105 | 0.20288 | | 0.490464 | 0 | | | 0 | 1.759302 | | | 2.806334 |
| DNA Damage Recognition in GG-NER Homo sapiens R-HSA-5696394 | 2/38 | 0.204845 | | 0.493553 | 0 | | | 0 | 2.464899 | | | 3.9081 |
| Transcriptional regulation by small RNAs Homo sapiens R-HSA-5578749 | 3/72 | 0.212969 | | 0.495461 | 0 | | | 0 | 1.930177 | | | 2.985228 |
| ISG15 antiviral mechanism Homo sapiens R-HSA-1169408 | 3/72 | 0.212969 | | 0.495461 | 0 | | | 0 | 1.930177 | | | 2.985228 |
| Antiviral mechanism by IFN-stimulated genes Homo sapiens R-HSA-1169410 | 3/72 | 0.212969 | | 0.495461 | 0 | | | 0 | 1.930177 | | | 2.985228 |
| Removal of licensing factors from origins Homo sapiens R-HSA-69300 | 3/72 | 0.212969 | | 0.495461 | 0 | | | 0 | 1.930177 | | | 2.985228 |
| TRAF6 Mediated Induction of proinflammatory cytokines Homo sapiens R-HSA-168180 | 3/72 | 0.212969 | | 0.495461 | 0 | | | 0 | 1.930177 | | | 2.985228 |
| Activation of NMDA receptor upon glutamate binding and postsynaptic events Homo sapiens R-HSA-442755 | 2/39 | 0.212969 | | 0.495461 | 0 | | | 0 | 2.398157 | | | 3.709007 |
| Dual Incision in GG-NER Homo sapiens R-HSA-5696400 | 2/39 | 0.212969 | | 0.495461 | 0 | | | 0 | 2.398157 | | | 3.709007 |
| Cytokine Signaling in Immune system Homo sapiens R-HSA-1280215 | 17/620 | 0.213667 | | 0.495461 | 0 | | | 0 | 1.25738 | | | 1.940558 |
| Import of palmitoyl-CoA into the mitochondrial matrix Homo sapiens R-HSA-200425 | 1/11 | 0.21799 | | 0.495461 | 0 | | | 0 | 4.432653 | | | 6.752282 |
| SLBP Dependent Processing of Replication-Dependent Histone Pre-mRNAs Homo sapiens R-HSA-77588 | 1/11 | 0.21799 | | 0.495461 | 0 | | | 0 | 4.432653 | | | 6.752282 |
| Highly calcium permeable postsynaptic nicotinic acetylcholine receptors Homo sapiens R-HSA-629594 | 1/11 | 0.21799 | | 0.495461 | 0 | | | 0 | 4.432653 | | | 6.752282 |
| Response to metal ions Homo sapiens R-HSA-5660526 | 1/11 | 0.21799 | | 0.495461 | 0 | | | 0 | 4.432653 | | | 6.752282 |
| Metallothioneins bind metals Homo sapiens R-HSA-5661231 | 1/11 | 0.21799 | | 0.495461 | 0 | | | 0 | 4.432653 | | | 6.752282 |
| Signaling by FGFR4 in disease Homo sapiens R-HSA-5655291 | 1/11 | 0.21799 | | 0.495461 | 0 | | | 0 | 4.432653 | | | 6.752282 |
| MyD88 deficiency (TLR2/4) Homo sapiens R-HSA-5602498 | 1/11 | 0.21799 | | 0.495461 | 0 | | | 0 | 4.432653 | | | 6.752282 |
| IRAK4 deficiency (TLR2/4) Homo sapiens R-HSA-5603041 | 1/11 | 0.21799 | | 0.495461 | 0 | | | 0 | 4.432653 | | | 6.752282 |
| DNA Double-Strand Break Repair Homo sapiens R-HSA-5693532 | 5/145 | 0.218051 | | 0.495461 | 0 | | | 0 | 1.586957 | | | 2.416975 |
| Positive epigenetic regulation of rRNA expression Homo sapiens R-HSA-5250913 | 3/73 | 0.218748 | | 0.495461 | 0 | | | 0 | 1.902506 | | | 2.891495 |
| NoRC negatively regulates rRNA expression Homo sapiens R-HSA-427413 | 3/73 | 0.218748 | | 0.495461 | 0 | | | 0 | 1.902506 | | | 2.891495 |
| TNF signaling Homo sapiens R-HSA-75893 | 2/41 | 0.229302 | | 0.507517 | 0 | | | 0 | 2.274942 | | | 3.350337 |
| Regulation of DNA replication Homo sapiens R-HSA-69304 | 3/75 | 0.230399 | | 0.507517 | 0 | | | 0 | 1.849468 | | | 2.714912 |
| Erythrocytes take up carbon dioxide and release oxygen Homo sapiens R-HSA-1237044 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| O2/CO2 exchange in erythrocytes Homo sapiens R-HSA-1480926 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| Reversible hydration of carbon dioxide Homo sapiens R-HSA-1475029 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| Defective EXT2 causes exostoses 2 Homo sapiens R-HSA-3656237 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| Defective EXT1 causes exostoses 1. TRPS2 and CHDS Homo sapiens R-HSA-3656253 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| ATF6-alpha activates chaperones Homo sapiens R-HSA-381033 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| TP53 Regulates Transcription of Death Receptors and Ligands Homo sapiens R-HSA-6803211 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| The NLRP3 inflammasome Homo sapiens R-HSA-844456 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| Peptide hormone biosynthesis Homo sapiens R-HSA-209952 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| Presynaptic nicotinic acetylcholine receptors Homo sapiens R-HSA-622323 | 1/12 | 0.235282 | | 0.507517 | 0 | | | 0 | 4.029478 | | | 5.830533 |
| G1/S Transition Homo sapiens R-HSA-69206 | 4/112 | 0.23554 | | 0.507517 | 0 | | | 0 | 1.644681 | | | 2.378 |
| Negative epigenetic regulation of rRNA expression Homo sapiens R-HSA-5250941 | 3/76 | 0.236268 | | 0.507517 | 0 | | | 0 | 1.82404 | | | 2.631707 |
| RNA Polymerase I Promoter Clearance Homo sapiens R-HSA-73854 | 3/76 | 0.236268 | | 0.507517 | 0 | | | 0 | 1.82404 | | | 2.631707 |
| Netrin-1 signaling Homo sapiens R-HSA-373752 | 2/42 | 0.237501 | | 0.507517 | 0 | | | 0 | 2.217955 | | | 3.188494 |
| EPHB-mediated forward signaling Homo sapiens R-HSA-3928662 | 2/42 | 0.237501 | | 0.507517 | 0 | | | 0 | 2.217955 | | | 3.188494 |
| Retinoid metabolism and transport Homo sapiens R-HSA-975634 | 2/42 | 0.237501 | | 0.507517 | 0 | | | 0 | 2.217955 | | | 3.188494 |
| Transcriptional regulation of pluripotent stem cells Homo sapiens R-HSA-452723 | 2/42 | 0.237501 | | 0.507517 | 0 | | | 0 | 2.217955 | | | 3.188494 |
| Formation of Incision Complex in GG-NER Homo sapiens R-HSA-5696395 | 2/43 | 0.245714 | | 0.52351 | 0 | | | 0 | 2.163747 | | | 3.037004 |
| Innate Immune System Homo sapiens R-HSA-168249 | 21/807 | 0.250714 | | 0.524853 | 0 | | | 0 | 1.191311 | | | 1.648108 |
| Facilitative Na+-independent glucose transporters Homo sapiens R-HSA-428790 | 1/13 | 0.252193 | | 0.524853 | 0 | | | 0 | 3.6935 | | | 5.088026 |
| Cytosolic iron-sulfur cluster assembly Homo sapiens R-HSA-2564830 | 1/13 | 0.252193 | | 0.524853 | 0 | | | 0 | 3.6935 | | | 5.088026 |
| Synthesis. secretion. and inactivation of Glucose-dependent Insulinotropic Polypeptide (GIP) Homo sapiens R-HSA-400511 | 1/13 | 0.252193 | | 0.524853 | 0 | | | 0 | 3.6935 | | | 5.088026 |
| TP53 Regulates Transcription of Genes Involved in G1 Cell Cycle Arrest Homo sapiens R-HSA-6804116 | 1/13 | 0.252193 | | 0.524853 | 0 | | | 0 | 3.6935 | | | 5.088026 |
| Signaling by Activin Homo sapiens R-HSA-1502540 | 1/13 | 0.252193 | | 0.524853 | 0 | | | 0 | 3.6935 | | | 5.088026 |
| AKT phosphorylates targets in the cytosol Homo sapiens R-HSA-198323 | 1/13 | 0.252193 | | 0.524853 | 0 | | | 0 | 3.6935 | | | 5.088026 |
| ERBB2 Activates PTK6 Signaling Homo sapiens R-HSA-8847993 | 1/13 | 0.252193 | | 0.524853 | 0 | | | 0 | 3.6935 | | | 5.088026 |
| Intra-Golgi traffic Homo sapiens R-HSA-6811438 | 2/44 | 0.253938 | | 0.526958 | 0 | | | 0 | 2.112121 | | | 2.895011 |
| RNA Polymerase I. RNA Polymerase III. and Mitochondrial Transcription Homo sapiens R-HSA-504046 | 4/116 | 0.254738 | | 0.527094 | 0 | | | 0 | 1.585616 | | | 2.168363 |
| Signaling by the B Cell Receptor (BCR) Homo sapiens R-HSA-983705 | 7/233 | 0.257735 | | 0.531763 | 0 | | | 0 | 1.376503 | | | 1.866295 |
| Diseases of metabolism Homo sapiens R-HSA-5668914 | 2/45 | 0.262167 | | 0.533006 | 0 | | | 0 | 2.062896 | | | 2.761749 |
| Interferon Signaling Homo sapiens R-HSA-913531 | 6/196 | 0.266765 | | 0.533006 | 0 | | | 0 | 1.402801 | | | 1.853645 |
| SEMA3A-Plexin repulsion signaling by inhibiting Integrin adhesion Homo sapiens R-HSA-399955 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Repression of WNT target genes Homo sapiens R-HSA-4641265 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Early Phase of HIV Life Cycle Homo sapiens R-HSA-162594 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Regulation of TP53 Activity through Association with Co-factors Homo sapiens R-HSA-6804759 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| TP53 regulates transcription of several additional cell death genes whose specific roles in p53-dependent apoptosis remain uncertain Homo sapiens R-HSA-6803205 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Synthesis of bile acids and bile salts via 24-hydroxycholesterol Homo sapiens R-HSA-193775 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Glutathione synthesis and recycling Homo sapiens R-HSA-174403 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Regulation of pyruvate dehydrogenase (PDH) complex Homo sapiens R-HSA-204174 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Activation of Nicotinic Acetylcholine Receptors Homo sapiens R-HSA-629602 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Postsynaptic nicotinic acetylcholine receptors Homo sapiens R-HSA-622327 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Acetylcholine Binding And Downstream Events Homo sapiens R-HSA-181431 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| Regulation of IFNG signaling Homo sapiens R-HSA-877312 | 1/14 | 0.26873 | | 0.533006 | 0 | | | 0 | 3.40921 | | | 4.479868 |
| DNA Damage Bypass Homo sapiens R-HSA-73893 | 2/46 | 0.270398 | | 0.533501 | 0 | | | 0 | 2.015909 | | | 2.636527 |
| Degradation of beta-catenin by the destruction complex Homo sapiens R-HSA-195253 | 3/82 | 0.271952 | | 0.533501 | 0 | | | 0 | 1.684986 | | | 2.194072 |
| DNA Replication Pre-Initiation Homo sapiens R-HSA-69002 | 3/82 | 0.271952 | | 0.533501 | 0 | | | 0 | 1.684986 | | | 2.194072 |
| M/G1 Transition Homo sapiens R-HSA-68874 | 3/82 | 0.271952 | | 0.533501 | 0 | | | 0 | 1.684986 | | | 2.194072 |
| TCF dependent signaling in response to WNT Homo sapiens R-HSA-201681 | 6/199 | 0.27805 | | 0.537746 | 0 | | | 0 | 1.380781 | | | 1.767335 |
| PI-3K cascade:FGFR1 Homo sapiens R-HSA-5654689 | 4/122 | 0.284084 | | 0.537746 | 0 | | | 0 | 1.504528 | | | 1.893426 |
| PI-3K cascade:FGFR3 Homo sapiens R-HSA-5654710 | 4/122 | 0.284084 | | 0.537746 | 0 | | | 0 | 1.504528 | | | 1.893426 |
| PI3K events in ERBB4 signaling Homo sapiens R-HSA-1250342 | 4/122 | 0.284084 | | 0.537746 | 0 | | | 0 | 1.504528 | | | 1.893426 |
| PIP3 activates AKT signaling Homo sapiens R-HSA-1257604 | 4/122 | 0.284084 | | 0.537746 | 0 | | | 0 | 1.504528 | | | 1.893426 |
| PI-3K cascade:FGFR4 Homo sapiens R-HSA-5654720 | 4/122 | 0.284084 | | 0.537746 | 0 | | | 0 | 1.504528 | | | 1.893426 |
| PI-3K cascade:FGFR2 Homo sapiens R-HSA-5654695 | 4/122 | 0.284084 | | 0.537746 | 0 | | | 0 | 1.504528 | | | 1.893426 |
| CREB phosphorylation through the activation of CaMKII Homo sapiens R-HSA-442729 | 1/15 | 0.284902 | | 0.537746 | 0 | | | 0 | 3.165533 | | | 3.974672 |
| Eicosanoid ligand-binding receptors Homo sapiens R-HSA-391903 | 1/15 | 0.284902 | | 0.537746 | 0 | | | 0 | 3.165533 | | | 3.974672 |
| Recycling of bile acids and salts Homo sapiens R-HSA-159418 | 1/15 | 0.284902 | | 0.537746 | 0 | | | 0 | 3.165533 | | | 3.974672 |
| Glycogen breakdown (glycogenolysis) Homo sapiens R-HSA-70221 | 1/15 | 0.284902 | | 0.537746 | 0 | | | 0 | 3.165533 | | | 3.974672 |
| ERBB2 Regulates Cell Motility Homo sapiens R-HSA-6785631 | 1/15 | 0.284902 | | 0.537746 | 0 | | | 0 | 3.165533 | | | 3.974672 |
| Signaling by EGFRvIII in Cancer Homo sapiens R-HSA-5637812 | 1/15 | 0.284902 | | 0.537746 | 0 | | | 0 | 3.165533 | | | 3.974672 |
| Constitutive Signaling by EGFRvIII Homo sapiens R-HSA-5637810 | 1/15 | 0.284902 | | 0.537746 | 0 | | | 0 | 3.165533 | | | 3.974672 |
| Metabolism of carbohydrates Homo sapiens R-HSA-71387 | 8/282 | 0.286513 | | 0.537746 | 0 | | | 0 | 1.297319 | | | 1.621614 |
| Hexose transport Homo sapiens R-HSA-189200 | 2/48 | 0.286848 | | 0.537746 | 0 | | | 0 | 1.928063 | | | 2.407773 |
| Death Receptor Signalling Homo sapiens R-HSA-73887 | 2/48 | 0.286848 | | 0.537746 | 0 | | | 0 | 1.928063 | | | 2.407773 |
| Meiosis Homo sapiens R-HSA-1500620 | 3/85 | 0.290014 | | 0.540857 | 0 | | | 0 | 1.62309 | | | 2.009103 |
| Hedgehog 'on' state Homo sapiens R-HSA-5632684 | 3/85 | 0.290014 | | 0.540857 | 0 | | | 0 | 1.62309 | | | 2.009103 |
| Signalling by NGF Homo sapiens R-HSA-166520 | 12/450 | 0.294229 | | 0.54571 | 0 | | | 0 | 1.218222 | | | 1.490371 |
| Mitochondrial biogenesis Homo sapiens R-HSA-1592230 | 2/49 | 0.295059 | | 0.54571 | 0 | | | 0 | 1.886944 | | | 2.303166 |
| Regulation of activated PAK-2p34 by proteasome mediated degradation Homo sapiens R-HSA-211733 | 2/49 | 0.295059 | | 0.54571 | 0 | | | 0 | 1.886944 | | | 2.303166 |
| Chromosome Maintenance Homo sapiens R-HSA-73886 | 3/86 | 0.296055 | | 0.54571 | 0 | | | 0 | 1.603453 | | | 1.951736 |
| GAB1 signalosome Homo sapiens R-HSA-180292 | 4/125 | 0.298945 | | 0.54571 | 0 | | | 0 | 1.466999 | | | 1.771395 |
| PI3K/AKT activation Homo sapiens R-HSA-198203 | 4/125 | 0.298945 | | 0.54571 | 0 | | | 0 | 1.466999 | | | 1.771395 |
| Regulation of KIT signaling Homo sapiens R-HSA-1433559 | 1/16 | 0.300718 | | 0.54571 | 0 | | | 0 | 2.954346 | | | 3.549893 |
| Sema3A PAK dependent Axon repulsion Homo sapiens R-HSA-399954 | 1/16 | 0.300718 | | 0.54571 | 0 | | | 0 | 2.954346 | | | 3.549893 |
| PI3K events in ERBB2 signaling Homo sapiens R-HSA-1963642 | 1/16 | 0.300718 | | 0.54571 | 0 | | | 0 | 2.954346 | | | 3.549893 |
| GRB2 events in ERBB2 signaling Homo sapiens R-HSA-1963640 | 1/16 | 0.300718 | | 0.54571 | 0 | | | 0 | 2.954346 | | | 3.549893 |
| CDK-mediated phosphorylation and removal of Cdc6 Homo sapiens R-HSA-69017 | 2/50 | 0.303257 | | 0.54571 | 0 | | | 0 | 1.847538 | | | 2.204438 |
| Ubiquitin-dependent degradation of Cyclin D1 Homo sapiens R-HSA-69229 | 2/50 | 0.303257 | | 0.54571 | 0 | | | 0 | 1.847538 | | | 2.204438 |
| Ubiquitin-dependent degradation of Cyclin D Homo sapiens R-HSA-75815 | 2/50 | 0.303257 | | 0.54571 | 0 | | | 0 | 1.847538 | | | 2.204438 |
| Regulation of Apoptosis Homo sapiens R-HSA-169911 | 2/50 | 0.303257 | | 0.54571 | 0 | | | 0 | 1.847538 | | | 2.204438 |
| Diseases of glycosylation Homo sapiens R-HSA-3781865 | 3/88 | 0.308159 | | 0.548358 | 0 | | | 0 | 1.565563 | | | 1.842886 |
| Neurotransmitter Release Cycle Homo sapiens R-HSA-112310 | 2/51 | 0.311437 | | 0.548358 | 0 | | | 0 | 1.80974 | | | 2.111168 |
| Metabolism of fat-soluble vitamins Homo sapiens R-HSA-6806667 | 2/51 | 0.311437 | | 0.548358 | 0 | | | 0 | 1.80974 | | | 2.111168 |
| Nuclear Receptor transcription pathway Homo sapiens R-HSA-383280 | 2/51 | 0.311437 | | 0.548358 | 0 | | | 0 | 1.80974 | | | 2.111168 |
| Vpu mediated degradation of CD4 Homo sapiens R-HSA-180534 | 2/51 | 0.311437 | | 0.548358 | 0 | | | 0 | 1.80974 | | | 2.111168 |
| Autodegradation of the E3 ubiquitin ligase COP1 Homo sapiens R-HSA-349425 | 2/51 | 0.311437 | | 0.548358 | 0 | | | 0 | 1.80974 | | | 2.111168 |
| Regulation of TP53 Activity through Phosphorylation Homo sapiens R-HSA-6804756 | 3/89 | 0.314218 | | 0.548358 | 0 | | | 0 | 1.54728 | | | 1.791236 |
| Acetylcholine Neurotransmitter Release Cycle Homo sapiens R-HSA-264642 | 1/17 | 0.316184 | | 0.548358 | 0 | | | 0 | 2.769558 | | | 3.188953 |
| Ras activation uopn Ca2+ infux through NMDA receptor Homo sapiens R-HSA-442982 | 1/17 | 0.316184 | | 0.548358 | 0 | | | 0 | 2.769558 | | | 3.188953 |
| TNF receptor superfamily (TNFSF) members mediating non-canonical NF-kB pathway Homo sapiens R-HSA-5676594 | 1/17 | 0.316184 | | 0.548358 | 0 | | | 0 | 2.769558 | | | 3.188953 |
| Trafficking of GluR2-containing AMPA receptors Homo sapiens R-HSA-416993 | 1/17 | 0.316184 | | 0.548358 | 0 | | | 0 | 2.769558 | | | 3.188953 |
| Tristetraprolin (TTP. ZFP36) binds and destabilizes mRNA Homo sapiens R-HSA-450513 | 1/17 | 0.316184 | | 0.548358 | 0 | | | 0 | 2.769558 | | | 3.188953 |
| Inflammasomes Homo sapiens R-HSA-622312 | 1/17 | 0.316184 | | 0.548358 | 0 | | | 0 | 2.769558 | | | 3.188953 |
| Formation of Senescence-Associated Heterochromatin Foci (SAHF) Homo sapiens R-HSA-2559584 | 1/17 | 0.316184 | | 0.548358 | 0 | | | 0 | 2.769558 | | | 3.188953 |
| Ligand-dependent caspase activation Homo sapiens R-HSA-140534 | 1/17 | 0.316184 | | 0.548358 | 0 | | | 0 | 2.769558 | | | 3.188953 |
| Nonhomologous End-Joining (NHEJ) Homo sapiens R-HSA-5693571 | 2/52 | 0.319597 | | 0.548973 | 0 | | | 0 | 1.773455 | | | 2.02297 |
| p53-Independent DNA Damage Response Homo sapiens R-HSA-69610 | 2/52 | 0.319597 | | 0.548973 | 0 | | | 0 | 1.773455 | | | 2.02297 |
| p53-Independent G1/S DNA damage checkpoint Homo sapiens R-HSA-69613 | 2/52 | 0.319597 | | 0.548973 | 0 | | | 0 | 1.773455 | | | 2.02297 |
| Ubiquitin Mediated Degradation of Phosphorylated Cdc25A Homo sapiens R-HSA-69601 | 2/52 | 0.319597 | | 0.548973 | 0 | | | 0 | 1.773455 | | | 2.02297 |
| Transmission across Chemical Synapses Homo sapiens R-HSA-112315 | 6/211 | 0.324154 | | 0.554499 | 0 | | | 0 | 1.29915 | | | 1.46354 |
| PCP/CE pathway Homo sapiens R-HSA-4086400 | 3/91 | 0.326342 | | 0.554499 | 0 | | | 0 | 1.511959 | | | 1.693104 |
| Formation of TC-NER Pre-Incision Complex Homo sapiens R-HSA-6781823 | 2/53 | 0.327733 | | 0.554499 | 0 | | | 0 | 1.738592 | | | 1.939495 |
| Vif-mediated degradation of APOBEC3G Homo sapiens R-HSA-180585 | 2/53 | 0.327733 | | 0.554499 | 0 | | | 0 | 1.738592 | | | 1.939495 |
| Signaling by Wnt Homo sapiens R-HSA-195721 | 8/295 | 0.32874 | | 0.554499 | 0 | | | 0 | 1.237721 | | | 1.376948 |
| Serotonin Neurotransmitter Release Cycle Homo sapiens R-HSA-181429 | 1/18 | 0.331309 | | 0.554499 | 0 | | | 0 | 2.606509 | | | 2.879418 |
| Norepinephrine Neurotransmitter Release Cycle Homo sapiens R-HSA-181430 | 1/18 | 0.331309 | | 0.554499 | 0 | | | 0 | 2.606509 | | | 2.879418 |
| Defective GALNT12 causes colorectal cancer 1 (CRCS1) Homo sapiens R-HSA-5083636 | 1/18 | 0.331309 | | 0.554499 | 0 | | | 0 | 2.606509 | | | 2.879418 |
| Defective GALNT3 causes familial hyperphosphatemic tumoral calcinosis (HFTC) Homo sapiens R-HSA-5083625 | 1/18 | 0.331309 | | 0.554499 | 0 | | | 0 | 2.606509 | | | 2.879418 |
| Activation of SMO Homo sapiens R-HSA-5635838 | 1/18 | 0.331309 | | 0.554499 | 0 | | | 0 | 2.606509 | | | 2.879418 |
| SHC1 events in ERBB2 signaling Homo sapiens R-HSA-1250196 | 1/18 | 0.331309 | | 0.554499 | 0 | | | 0 | 2.606509 | | | 2.879418 |
| Heparan sulfate/heparin (HS-GAG) metabolism Homo sapiens R-HSA-1638091 | 2/54 | 0.335843 | | 0.554792 | 0 | | | 0 | 1.70507 | | | 1.86042 |
| Golgi Associated Vesicle Biogenesis Homo sapiens R-HSA-432722 | 2/54 | 0.335843 | | 0.554792 | 0 | | | 0 | 1.70507 | | | 1.86042 |
| SCF-beta-TrCP mediated degradation of Emi1 Homo sapiens R-HSA-174113 | 2/54 | 0.335843 | | 0.554792 | 0 | | | 0 | 1.70507 | | | 1.86042 |
| Stabilization of p53 Homo sapiens R-HSA-69541 | 2/54 | 0.335843 | | 0.554792 | 0 | | | 0 | 1.70507 | | | 1.86042 |
| Degradation of AXIN Homo sapiens R-HSA-4641257 | 2/54 | 0.335843 | | 0.554792 | 0 | | | 0 | 1.70507 | | | 1.86042 |
| G2/M Transition Homo sapiens R-HSA-69275 | 5/173 | 0.33612 | | 0.554792 | 0 | | | 0 | 1.320557 | | | 1.439785 |
| Mitotic G2-G2/M phases Homo sapiens R-HSA-453274 | 5/175 | 0.344861 | | 0.558428 | 0 | | | 0 | 1.304886 | | | 1.3892 |
| GABA synthesis. release. reuptake and degradation Homo sapiens R-HSA-888590 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| Other semaphorin interactions Homo sapiens R-HSA-416700 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| Ephrin signaling Homo sapiens R-HSA-3928664 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| Defective B3GALT6 causes EDSP2 and SEMDJL1 Homo sapiens R-HSA-4420332 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| Defective B4GALT7 causes EDS. progeroid type Homo sapiens R-HSA-3560783 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| Defective B3GAT3 causes JDSSDHD Homo sapiens R-HSA-3560801 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| TP53 Regulates Transcription of Genes Involved in Cytochrome C Release Homo sapiens R-HSA-6803204 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| Signaling by NODAL Homo sapiens R-HSA-1181150 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| Phase 4 - resting membrane potential Homo sapiens R-HSA-5576886 | 1/19 | 0.346101 | | 0.558428 | 0 | | | 0 | 2.461577 | | | 2.611796 |
| TNFR2 non-canonical NF-kB pathway Homo sapiens R-HSA-5668541 | 3/95 | 0.350574 | | 0.564377 | 0 | | | 0 | 1.445925 | | | 1.515595 |
| Degradation of DVL Homo sapiens R-HSA-4641258 | 2/56 | 0.351973 | | 0.565361 | 0 | | | 0 | 1.641751 | | | 1.714319 |
| Mitotic G1-G1/S phases Homo sapiens R-HSA-453279 | 4/136 | 0.354013 | | 0.567369 | 0 | | | 0 | 1.343988 | | | 1.395626 |
| Defective C1GALT1C1 causes Tn polyagglutination syndrome (TNPS) Homo sapiens R-HSA-5083632 | 1/20 | 0.360566 | | 0.574027 | 0 | | | 0 | 2.331901 | | | 2.378729 |
| eNOS activation and regulation Homo sapiens R-HSA-203765 | 1/20 | 0.360566 | | 0.574027 | 0 | | | 0 | 2.331901 | | | 2.378729 |
| Metabolism of nitric oxide Homo sapiens R-HSA-202131 | 1/20 | 0.360566 | | 0.574027 | 0 | | | 0 | 2.331901 | | | 2.378729 |
| Synthesis of DNA Homo sapiens R-HSA-69239 | 3/97 | 0.362658 | | 0.576081 | 0 | | | 0 | 1.415015 | | | 1.435242 |
| NIK-->noncanonical NF-kB signaling Homo sapiens R-HSA-5676590 | 2/58 | 0.367965 | | 0.581935 | 0 | | | 0 | 1.582955 | | | 1.582588 |
| CDT1 association with the CDC6:ORC:origin complex Homo sapiens R-HSA-68827 | 2/58 | 0.367965 | | 0.581935 | 0 | | | 0 | 1.582955 | | | 1.582588 |
| CLEC7A (Dectin-1) signaling Homo sapiens R-HSA-5607764 | 3/99 | 0.374707 | | 0.585463 | 0 | | | 0 | 1.385393 | | | 1.359917 |
| Downstream TCR signaling Homo sapiens R-HSA-202424 | 3/99 | 0.374707 | | 0.585463 | 0 | | | 0 | 1.385393 | | | 1.359917 |
| HS-GAG degradation Homo sapiens R-HSA-2024096 | 1/21 | 0.374711 | | 0.585463 | 0 | | | 0 | 2.215193 | | | 2.174432 |
| Cell Cycle Checkpoints Homo sapiens R-HSA-69620 | 5/182 | 0.375538 | | 0.585463 | 0 | | | 0 | 1.252828 | | | 1.227013 |
| Degradation of GLI1 by the proteasome Homo sapiens R-HSA-5610780 | 2/59 | 0.375903 | | 0.585463 | 0 | | | 0 | 1.555104 | | | 1.521552 |
| GLI3 is processed to GLI3R by the proteasome Homo sapiens R-HSA-5610785 | 2/59 | 0.375903 | | 0.585463 | 0 | | | 0 | 1.555104 | | | 1.521552 |
| Degradation of GLI2 by the proteasome Homo sapiens R-HSA-5610783 | 2/59 | 0.375903 | | 0.585463 | 0 | | | 0 | 1.555104 | | | 1.521552 |
| Neurotransmitter Receptor Binding And Downstream Transmission In The Postsynaptic Cell Homo sapiens R-HSA-112314 | 4/142 | 0.384128 | | 0.596978 | 0 | | | 0 | 1.285157 | | | 1.229611 |
| Signaling by FGFR3 point mutants in cancer Homo sapiens R-HSA-8853338 | 1/22 | 0.388545 | | 0.601239 | 0 | | | 0 | 2.109599 | | | 1.994304 |
| Signaling by FGFR3 in disease Homo sapiens R-HSA-5655332 | 1/22 | 0.388545 | | 0.601239 | 0 | | | 0 | 2.109599 | | | 1.994304 |
| Cell death signalling via NRAGE. NRIF and NADE Homo sapiens R-HSA-204998 | 2/61 | 0.391653 | | 0.602157 | 0 | | | 0 | 1.502234 | | | 1.408161 |
| Constitutive Signaling by Aberrant PI3K in Cancer Homo sapiens R-HSA-2219530 | 2/61 | 0.391653 | | 0.602157 | 0 | | | 0 | 1.502234 | | | 1.408161 |
| Dectin-1 mediated noncanonical NF-kB signaling Homo sapiens R-HSA-5607761 | 2/61 | 0.391653 | | 0.602157 | 0 | | | 0 | 1.502234 | | | 1.408161 |
| Diseases associated with O-glycosylation of proteins Homo sapiens R-HSA-3906995 | 2/62 | 0.399462 | | 0.60395 | 0 | | | 0 | 1.477121 | | | 1.355461 |
| Cytochrome P450 - arranged by substrate type Homo sapiens R-HSA-211897 | 2/62 | 0.399462 | | 0.60395 | 0 | | | 0 | 1.477121 | | | 1.355461 |
| Gap-filling DNA repair synthesis and ligation in TC-NER Homo sapiens R-HSA-6782210 | 2/62 | 0.399462 | | 0.60395 | 0 | | | 0 | 1.477121 | | | 1.355461 |
| Autodegradation of Cdh1 by Cdh1:APC/C Homo sapiens R-HSA-174084 | 2/62 | 0.399462 | | 0.60395 | 0 | | | 0 | 1.477121 | | | 1.355461 |
| Dopamine Neurotransmitter Release Cycle Homo sapiens R-HSA-212676 | 1/23 | 0.402073 | | 0.60395 | 0 | | | 0 | 2.013605 | | | 1.834641 |
| The canonical retinoid cycle in rods (twilight vision) Homo sapiens R-HSA-2453902 | 1/23 | 0.402073 | | 0.60395 | 0 | | | 0 | 2.013605 | | | 1.834641 |
| Incretin synthesis. secretion. and inactivation Homo sapiens R-HSA-400508 | 1/23 | 0.402073 | | 0.60395 | 0 | | | 0 | 2.013605 | | | 1.834641 |
| Deadenylation of mRNA Homo sapiens R-HSA-429947 | 1/23 | 0.402073 | | 0.60395 | 0 | | | 0 | 2.013605 | | | 1.834641 |
| Signaling by BMP Homo sapiens R-HSA-201451 | 1/23 | 0.402073 | | 0.60395 | 0 | | | 0 | 2.013605 | | | 1.834641 |
| Branched-chain amino acid catabolism Homo sapiens R-HSA-70895 | 1/23 | 0.402073 | | 0.60395 | 0 | | | 0 | 2.013605 | | | 1.834641 |
| SHC-mediated cascade:FGFR4 Homo sapiens R-HSA-5654719 | 1/23 | 0.402073 | | 0.60395 | 0 | | | 0 | 2.013605 | | | 1.834641 |
| Dual incision in TC-NER Homo sapiens R-HSA-6782135 | 2/63 | 0.407223 | | 0.610409 | 0 | | | 0 | 1.452832 | | | 1.305216 |
| Glutamate Neurotransmitter Release Cycle Homo sapiens R-HSA-210500 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| Sema4D induced cell migration and growth-cone collapse Homo sapiens R-HSA-416572 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| TNFs bind their physiological receptors Homo sapiens R-HSA-5669034 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| Post-Elongation Processing of Intronless pre-mRNA Homo sapiens R-HSA-112297 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| Processing of Capped Intronless Pre-mRNA Homo sapiens R-HSA-75067 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| Synthesis of bile acids and bile salts via 7alpha-hydroxycholesterol Homo sapiens R-HSA-193368 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| Growth hormone receptor signaling Homo sapiens R-HSA-982772 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| Diseases associated with the TLR signaling cascade Homo sapiens R-HSA-5602358 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| Diseases of Immune System Homo sapiens R-HSA-5260271 | 1/24 | 0.415302 | | 0.611039 | 0 | | | 0 | 1.925959 | | | 1.692435 |
| Mitotic Prophase Homo sapiens R-HSA-68875 | 3/107 | 0.422352 | | 0.617777 | 0 | | | 0 | 1.278299 | | | 1.101786 |
| HATs acetylate histones Homo sapiens R-HSA-3214847 | 3/107 | 0.422352 | | 0.617777 | 0 | | | 0 | 1.278299 | | | 1.101786 |
| ER-Phagosome pathway Homo sapiens R-HSA-1236974 | 2/65 | 0.422597 | | 0.617777 | 0 | | | 0 | 1.406566 | | | 1.211526 |
| G2/M Checkpoints Homo sapiens R-HSA-69481 | 4/150 | 0.42399 | | 0.617777 | 0 | | | 0 | 1.214237 | | | 1.04187 |
| Activation of G protein gated Potassium channels Homo sapiens R-HSA-1296041 | 1/25 | 0.428239 | | 0.617777 | 0 | | | 0 | 1.845616 | | | 1.565217 |
| Inhibition of voltage gated Ca2+ channels via Gbeta/gamma subunits Homo sapiens R-HSA-997272 | 1/25 | 0.428239 | | 0.617777 | 0 | | | 0 | 1.845616 | | | 1.565217 |
| G protein gated Potassium channels Homo sapiens R-HSA-1296059 | 1/25 | 0.428239 | | 0.617777 | 0 | | | 0 | 1.845616 | | | 1.565217 |
| HDMs demethylate histones Homo sapiens R-HSA-3214842 | 1/25 | 0.428239 | | 0.617777 | 0 | | | 0 | 1.845616 | | | 1.565217 |
| Regulation of IFNA signaling Homo sapiens R-HSA-912694 | 1/25 | 0.428239 | | 0.617777 | 0 | | | 0 | 1.845616 | | | 1.565217 |
| Regulation of TP53 Activity Homo sapiens R-HSA-5633007 | 4/151 | 0.428933 | | 0.617777 | 0 | | | 0 | 1.205914 | | | 1.020752 |
| APC/C:Cdc20 mediated degradation of Securin Homo sapiens R-HSA-174154 | 2/66 | 0.430207 | | 0.617777 | 0 | | | 0 | 1.384517 | | | 1.167825 |
| Cytosolic sensors of pathogen-associated DNA Homo sapiens R-HSA-1834949 | 2/66 | 0.430207 | | 0.617777 | 0 | | | 0 | 1.384517 | | | 1.167825 |
| Disease Homo sapiens R-HSA-1643685 | 17/725 | 0.436279 | | 0.618281 | 0 | | | 0 | 1.064972 | | | 0.883366 |
| Macroautophagy Homo sapiens R-HSA-1632852 | 2/67 | 0.437763 | | 0.618281 | 0 | | | 0 | 1.363147 | | | 1.126064 |
| Regulation of RAS by GAPs Homo sapiens R-HSA-5658442 | 2/67 | 0.437763 | | 0.618281 | 0 | | | 0 | 1.363147 | | | 1.126064 |
| Assembly of the pre-replicative complex Homo sapiens R-HSA-68867 | 2/67 | 0.437763 | | 0.618281 | 0 | | | 0 | 1.363147 | | | 1.126064 |
| WNT ligand biogenesis and trafficking Homo sapiens R-HSA-3238698 | 1/26 | 0.440891 | | 0.618281 | 0 | | | 0 | 1.771701 | | | 1.450948 |
| Fertilization Homo sapiens R-HSA-1187000 | 1/26 | 0.440891 | | 0.618281 | 0 | | | 0 | 1.771701 | | | 1.450948 |
| Reproduction Homo sapiens R-HSA-1474165 | 1/26 | 0.440891 | | 0.618281 | 0 | | | 0 | 1.771701 | | | 1.450948 |
| Diseases associated with glycosaminoglycan metabolism Homo sapiens R-HSA-3560782 | 1/26 | 0.440891 | | 0.618281 | 0 | | | 0 | 1.771701 | | | 1.450948 |
| A tetrasaccharide linker sequence is required for GAG synthesis Homo sapiens R-HSA-1971475 | 1/26 | 0.440891 | | 0.618281 | 0 | | | 0 | 1.771701 | | | 1.450948 |
| Termination of O-glycan biosynthesis Homo sapiens R-HSA-977068 | 1/26 | 0.440891 | | 0.618281 | 0 | | | 0 | 1.771701 | | | 1.450948 |
| Resolution of D-loop Structures through Synthesis-Dependent Strand Annealing (SDSA) Homo sapiens R-HSA-5693554 | 1/26 | 0.440891 | | 0.618281 | 0 | | | 0 | 1.771701 | | | 1.450948 |
| SHC-mediated cascade:FGFR2 Homo sapiens R-HSA-5654699 | 1/26 | 0.440891 | | 0.618281 | 0 | | | 0 | 1.771701 | | | 1.450948 |
| Interferon alpha/beta signaling Homo sapiens R-HSA-909733 | 2/68 | 0.445265 | | 0.622624 | 0 | | | 0 | 1.342424 | | | 1.086137 |
| FCERI mediated NF-kB activation Homo sapiens R-HSA-2871837 | 3/111 | 0.445722 | | 0.622624 | 0 | | | 0 | 1.230701 | | | 0.99448 |
| Loss of Nlp from mitotic centrosomes Homo sapiens R-HSA-380259 | 2/69 | 0.45271 | | 0.623454 | 0 | | | 0 | 1.32232 | | | 1.047943 |
| Loss of proteins required for interphase microtubule organization?from the centrosome Homo sapiens R-HSA-380284 | 2/69 | 0.45271 | | 0.623454 | 0 | | | 0 | 1.32232 | | | 1.047943 |
| Sema4D in semaphorin signaling Homo sapiens R-HSA-400685 | 1/27 | 0.453263 | | 0.623454 | 0 | | | 0 | 1.703471 | | | 1.347926 |
| CREB phosphorylation through the activation of Ras Homo sapiens R-HSA-442742 | 1/27 | 0.453263 | | 0.623454 | 0 | | | 0 | 1.703471 | | | 1.347926 |
| VEGFR2 mediated vascular permeability Homo sapiens R-HSA-5218920 | 1/27 | 0.453263 | | 0.623454 | 0 | | | 0 | 1.703471 | | | 1.347926 |
| RORA activates gene expression Homo sapiens R-HSA-1368082 | 1/27 | 0.453263 | | 0.623454 | 0 | | | 0 | 1.703471 | | | 1.347926 |
| Pyruvate metabolism Homo sapiens R-HSA-70268 | 1/27 | 0.453263 | | 0.623454 | 0 | | | 0 | 1.703471 | | | 1.347926 |
| Caspase activation via extrinsic apoptotic signalig pathway Homo sapiens R-HSA-5357769 | 1/27 | 0.453263 | | 0.623454 | 0 | | | 0 | 1.703471 | | | 1.347926 |
| PPARA activates gene expression Homo sapiens R-HSA-1989781 | 3/113 | 0.457267 | | 0.627759 | 0 | | | 0 | 1.2082 | | | 0.945402 |
| trans-Golgi Network Vesicle Budding Homo sapiens R-HSA-199992 | 2/70 | 0.460098 | | 0.629239 | 0 | | | 0 | 1.302807 | | | 1.01139 |
| Clathrin derived vesicle budding Homo sapiens R-HSA-421837 | 2/70 | 0.460098 | | 0.629239 | 0 | | | 0 | 1.302807 | | | 1.01139 |
| Energy dependent regulation of mTOR by LKB1-AMPK Homo sapiens R-HSA-380972 | 1/28 | 0.465363 | | 0.635229 | 0 | | | 0 | 1.640296 | | | 1.254725 |
| APC/C:Cdh1 mediated degradation of Cdc20 and other APC/C:Cdh1 targeted proteins in late mitosis/early G1 Homo sapiens R-HSA-174178 | 2/71 | 0.467428 | | 0.635631 | 0 | | | 0 | 1.28386 | | | 0.976389 |
| Cdc20:Phospho-APC/C mediated degradation of Cyclin A Homo sapiens R-HSA-174184 | 2/71 | 0.467428 | | 0.635631 | 0 | | | 0 | 1.28386 | | | 0.976389 |
| Epigenetic regulation of gene expression Homo sapiens R-HSA-212165 | 3/115 | 0.468709 | | 0.636169 | 0 | | | 0 | 1.186503 | | | 0.8991 |
| Regulation of lipid metabolism by Peroxisome proliferator-activated receptor alpha (PPARalpha) Homo sapiens R-HSA-400206 | 3/116 | 0.47439 | | 0.639227 | 0 | | | 0 | 1.175943 | | | 0.876931 |
| APC:Cdc20 mediated degradation of cell cycle proteins prior to satisfation of the cell cycle checkpoint Homo sapiens R-HSA-179419 | 2/72 | 0.474698 | | 0.639227 | 0 | | | 0 | 1.265455 | | | 0.94286 |
| AURKA Activation by TPX2 Homo sapiens R-HSA-8854518 | 2/72 | 0.474698 | | 0.639227 | 0 | | | 0 | 1.265455 | | | 0.94286 |
| Surfactant metabolism Homo sapiens R-HSA-5683826 | 1/29 | 0.477195 | | 0.639227 | 0 | | | 0 | 1.581633 | | | 1.170141 |
| COPI-independent Golgi-to-ER retrograde traffic Homo sapiens R-HSA-6811436 | 1/29 | 0.477195 | | 0.639227 | 0 | | | 0 | 1.581633 | | | 1.170141 |
| Activation of BH3-only proteins Homo sapiens R-HSA-114452 | 1/29 | 0.477195 | | 0.639227 | 0 | | | 0 | 1.581633 | | | 1.170141 |
| PIWI-interacting RNA (piRNA) biogenesis Homo sapiens R-HSA-5601884 | 1/29 | 0.477195 | | 0.639227 | 0 | | | 0 | 1.581633 | | | 1.170141 |
| Role of LAT2/NTAL/LAB on calcium mobilization Homo sapiens R-HSA-2730905 | 4/162 | 0.482439 | | 0.645049 | 0 | | | 0 | 1.121322 | | | 0.817332 |
| TCR signaling Homo sapiens R-HSA-202403 | 3/118 | 0.485667 | | 0.645483 | 0 | | | 0 | 1.155373 | | | 0.834448 |
| Apoptosis Homo sapiens R-HSA-109581 | 4/163 | 0.48721 | | 0.645483 | 0 | | | 0 | 1.114213 | | | 0.801185 |
| Tight junction interactions Homo sapiens R-HSA-420029 | 1/30 | 0.488765 | | 0.645483 | 0 | | | 0 | 1.527015 | | | 1.093149 |
| Activation of the pre-replicative complex Homo sapiens R-HSA-68962 | 1/30 | 0.488765 | | 0.645483 | 0 | | | 0 | 1.527015 | | | 1.093149 |
| MAPK targets/ Nuclear events mediated by MAP kinases Homo sapiens R-HSA-450282 | 1/30 | 0.488765 | | 0.645483 | 0 | | | 0 | 1.527015 | | | 1.093149 |
| Binding and Uptake of Ligands by Scavenger Receptors Homo sapiens R-HSA-2173782 | 2/74 | 0.489057 | | 0.645483 | 0 | | | 0 | 1.230177 | | | 0.879917 |
| APC/C:Cdc20 mediated degradation of mitotic proteins Homo sapiens R-HSA-176409 | 2/74 | 0.489057 | | 0.645483 | 0 | | | 0 | 1.230177 | | | 0.879917 |
| Activation of APC/C and APC/C:Cdc20 mediated degradation of mitotic proteins Homo sapiens R-HSA-176814 | 2/75 | 0.496143 | | 0.652832 | 0 | | | 0 | 1.213263 | | | 0.850365 |
| Neuronal System Homo sapiens R-HSA-112316 | 7/301 | 0.499159 | | 0.652832 | 0 | | | 0 | 1.054406 | | | 0.732634 |
| Inwardly rectifying K+ channels Homo sapiens R-HSA-1296065 | 1/31 | 0.500081 | | 0.652832 | 0 | | | 0 | 1.476039 | | | 1.022875 |
| Trafficking of AMPA receptors Homo sapiens R-HSA-399719 | 1/31 | 0.500081 | | 0.652832 | 0 | | | 0 | 1.476039 | | | 1.022875 |
| Glutamate Binding. Activation of AMPA Receptors and Synaptic Plasticity Homo sapiens R-HSA-399721 | 1/31 | 0.500081 | | 0.652832 | 0 | | | 0 | 1.476039 | | | 1.022875 |
| Export of Viral Ribonucleoproteins from Nucleus Homo sapiens R-HSA-168274 | 1/31 | 0.500081 | | 0.652832 | 0 | | | 0 | 1.476039 | | | 1.022875 |
| Programmed Cell Death Homo sapiens R-HSA-5357801 | 4/166 | 0.501413 | | 0.653384 | 0 | | | 0 | 1.09341 | | | 0.754808 |
| Transcription-Coupled Nucleotide Excision Repair (TC-NER) Homo sapiens R-HSA-6781827 | 2/76 | 0.503167 | | 0.654481 | 0 | | | 0 | 1.196806 | | | 0.822007 |
| Activation of Matrix Metalloproteinases Homo sapiens R-HSA-1592389 | 1/32 | 0.511146 | | 0.661266 | 0 | | | 0 | 1.428352 | | | 0.958567 |
| RNA Polymerase I Transcription Termination Homo sapiens R-HSA-73863 | 1/32 | 0.511146 | | 0.661266 | 0 | | | 0 | 1.428352 | | | 0.958567 |
| Gluconeogenesis Homo sapiens R-HSA-70263 | 1/32 | 0.511146 | | 0.661266 | 0 | | | 0 | 1.428352 | | | 0.958567 |
| C-type lectin receptors (CLRs) Homo sapiens R-HSA-5621481 | 3/123 | 0.513334 | | 0.662902 | 0 | | | 0 | 1.106948 | | | 0.738145 |
| G2/M DNA damage checkpoint Homo sapiens R-HSA-69473 | 2/78 | 0.517023 | | 0.665712 | 0 | | | 0 | 1.165191 | | | 0.76864 |
| S Phase Homo sapiens R-HSA-69242 | 3/124 | 0.518772 | | 0.665712 | 0 | | | 0 | 1.097743 | | | 0.720438 |
| Inactivation. recovery and regulation of the phototransduction cascade Homo sapiens R-HSA-2514859 | 1/33 | 0.521967 | | 0.665712 | 0 | | | 0 | 1.383645 | | | 0.899578 |
| Resolution of D-Loop Structures Homo sapiens R-HSA-5693537 | 1/33 | 0.521967 | | 0.665712 | 0 | | | 0 | 1.383645 | | | 0.899578 |
| PI3K Cascade Homo sapiens R-HSA-109704 | 2/79 | 0.523854 | | 0.665712 | 0 | | | 0 | 1.15 | | | 0.743524 |
| Regulation of APC/C activators between G1/S and early anaphase Homo sapiens R-HSA-176408 | 2/79 | 0.523854 | | 0.665712 | 0 | | | 0 | 1.15 | | | 0.743524 |
| RIG-I/MDA5 mediated induction of IFN-alpha/beta pathways Homo sapiens R-HSA-168928 | 2/79 | 0.523854 | | 0.665712 | 0 | | | 0 | 1.15 | | | 0.743524 |
| Centrosome maturation Homo sapiens R-HSA-380287 | 2/79 | 0.523854 | | 0.665712 | 0 | | | 0 | 1.15 | | | 0.743524 |
| Recruitment of mitotic centrosome proteins and complexes Homo sapiens R-HSA-380270 | 2/79 | 0.523854 | | 0.665712 | 0 | | | 0 | 1.15 | | | 0.743524 |
| Vesicle-mediated transport Homo sapiens R-HSA-5653656 | 11/492 | 0.527362 | | 0.668986 | 0 | | | 0 | 1.012233 | | | 0.647695 |
| The phototransduction cascade Homo sapiens R-HSA-2514856 | 1/34 | 0.532549 | | 0.674374 | 0 | | | 0 | 1.341648 | | | 0.845346 |
| Peptide hormone metabolism Homo sapiens R-HSA-2980736 | 2/81 | 0.53732 | | 0.679218 | 0 | | | 0 | 1.120771 | | | 0.696179 |
| Post NMDA receptor activation events Homo sapiens R-HSA-438064 | 1/35 | 0.542897 | | 0.683992 | 0 | | | 0 | 1.302121 | | | 0.795382 |
| Global Genome Nucleotide Excision Repair (GG-NER) Homo sapiens R-HSA-5696399 | 2/82 | 0.543955 | | 0.683992 | 0 | | | 0 | 1.106705 | | | 0.673861 |
| Antigen processing-Cross presentation Homo sapiens R-HSA-1236975 | 2/82 | 0.543955 | | 0.683992 | 0 | | | 0 | 1.106705 | | | 0.673861 |
| p75 NTR receptor-mediated signalling Homo sapiens R-HSA-193704 | 2/83 | 0.550522 | | 0.689834 | 0 | | | 0 | 1.092985 | | | 0.65239 |
| PI5P. PP2A and IER3 Regulate PI3K/AKT Signaling Homo sapiens R-HSA-6811558 | 2/83 | 0.550522 | | 0.689834 | 0 | | | 0 | 1.092985 | | | 0.65239 |
| Class B/2 (Secretin family receptors) Homo sapiens R-HSA-373080 | 2/84 | 0.557023 | | 0.696764 | 0 | | | 0 | 1.079601 | | | 0.631727 |
| Intra-Golgi and retrograde Golgi-to-ER traffic Homo sapiens R-HSA-6811442 | 4/179 | 0.560816 | | 0.697521 | 0 | | | 0 | 1.011507 | | | 0.585018 |
| Chromatin organization Homo sapiens R-HSA-4839726 | 5/226 | 0.561494 | | 0.697521 | 0 | | | 0 | 1.001118 | | | 0.5778 |
| Chromatin modifying enzymes Homo sapiens R-HSA-3247509 | 5/226 | 0.561494 | | 0.697521 | 0 | | | 0 | 1.001118 | | | 0.5778 |
| Defective B3GALTL causes Peters-plus syndrome (PpS) Homo sapiens R-HSA-5083635 | 1/37 | 0.562913 | | 0.697521 | 0 | | | 0 | 1.229655 | | | 0.706597 |
| APC/C-mediated degradation of cell cycle proteins Homo sapiens R-HSA-174143 | 2/85 | 0.563457 | | 0.697521 | 0 | | | 0 | 1.066539 | | | 0.611835 |
| Regulation of mitotic cell cycle Homo sapiens R-HSA-453276 | 2/85 | 0.563457 | | 0.697521 | 0 | | | 0 | 1.066539 | | | 0.611835 |
| O-glycosylation of TSR domain-containing proteins Homo sapiens R-HSA-5173214 | 1/38 | 0.57259 | | 0.70518 | 0 | | | 0 | 1.19636 | | | 0.667072 |
| Glutathione conjugation Homo sapiens R-HSA-156590 | 1/38 | 0.57259 | | 0.70518 | 0 | | | 0 | 1.19636 | | | 0.667072 |
| Signaling by FGFR1 in disease Homo sapiens R-HSA-5655302 | 1/38 | 0.57259 | | 0.70518 | 0 | | | 0 | 1.19636 | | | 0.667072 |
| Signaling by Hedgehog Homo sapiens R-HSA-5358351 | 3/136 | 0.581335 | | 0.709533 | 0 | | | 0 | 0.998082 | | | 0.541387 |
| GABA B receptor activation Homo sapiens R-HSA-977444 | 1/39 | 0.582054 | | 0.709533 | 0 | | | 0 | 1.164817 | | | 0.630389 |
| Activation of GABAB receptors Homo sapiens R-HSA-991365 | 1/39 | 0.582054 | | 0.709533 | 0 | | | 0 | 1.164817 | | | 0.630389 |
| mTOR signalling Homo sapiens R-HSA-165159 | 1/39 | 0.582054 | | 0.709533 | 0 | | | 0 | 1.164817 | | | 0.630389 |
| NS1 Mediated Effects on Host Pathways Homo sapiens R-HSA-168276 | 1/39 | 0.582054 | | 0.709533 | 0 | | | 0 | 1.164817 | | | 0.630389 |
| Nuclear signaling by ERBB4 Homo sapiens R-HSA-1251985 | 1/39 | 0.582054 | | 0.709533 | 0 | | | 0 | 1.164817 | | | 0.630389 |
| Membrane Trafficking Homo sapiens R-HSA-199991 | 9/420 | 0.584425 | | 0.711216 | 0 | | | 0 | 0.968308 | | | 0.520103 |
| PKB-mediated events Homo sapiens R-HSA-109703 | 1/40 | 0.591309 | | 0.717162 | 0 | | | 0 | 1.134892 | | | 0.596291 |
| Transcriptional activation of mitochondrial biogenesis Homo sapiens R-HSA-2151201 | 1/40 | 0.591309 | | 0.717162 | 0 | | | 0 | 1.134892 | | | 0.596291 |
| Negative regulation of the PI3K/AKT network Homo sapiens R-HSA-199418 | 2/90 | 0.594615 | | 0.719956 | 0 | | | 0 | 1.005682 | | | 0.522794 |
| Intraflagellar transport Homo sapiens R-HSA-5620924 | 1/41 | 0.600359 | | 0.724192 | 0 | | | 0 | 1.106463 | | | 0.564548 |
| Host Interactions with Influenza Factors Homo sapiens R-HSA-168253 | 1/41 | 0.600359 | | 0.724192 | 0 | | | 0 | 1.106463 | | | 0.564548 |
| DNA Repair Homo sapiens R-HSA-73894 | 6/285 | 0.604614 | | 0.724192 | 0 | | | 0 | 0.950922 | | | 0.478472 |
| Factors involved in megakaryocyte development and platelet production Homo sapiens R-HSA-983231 | 3/141 | 0.605838 | | 0.724192 | 0 | | | 0 | 0.961672 | | | 0.481934 |
| HIV Life Cycle Homo sapiens R-HSA-162587 | 3/141 | 0.605838 | | 0.724192 | 0 | | | 0 | 0.961672 | | | 0.481934 |
| Signaling by Retinoic Acid Homo sapiens R-HSA-5362517 | 1/42 | 0.609209 | | 0.724192 | 0 | | | 0 | 1.07942 | | | 0.534954 |
| Non-integrin membrane-ECM interactions Homo sapiens R-HSA-3000171 | 1/42 | 0.609209 | | 0.724192 | 0 | | | 0 | 1.07942 | | | 0.534954 |
| Intrinsic Pathway for Apoptosis Homo sapiens R-HSA-109606 | 1/42 | 0.609209 | | 0.724192 | 0 | | | 0 | 1.07942 | | | 0.534954 |
| Glucose transport Homo sapiens R-HSA-70153 | 1/42 | 0.609209 | | 0.724192 | 0 | | | 0 | 1.07942 | | | 0.534954 |
| BMAL1:CLOCK.NPAS2 activates circadian gene expression Homo sapiens R-HSA-1368108 | 1/42 | 0.609209 | | 0.724192 | 0 | | | 0 | 1.07942 | | | 0.534954 |
| Activation of gene expression by SREBF (SREBP) Homo sapiens R-HSA-2426168 | 1/42 | 0.609209 | | 0.724192 | 0 | | | 0 | 1.07942 | | | 0.534954 |
| Interferon gamma signaling Homo sapiens R-HSA-877300 | 2/93 | 0.612498 | | 0.726898 | 0 | | | 0 | 0.972378 | | | 0.476669 |
| Signaling by FGFR2 in disease Homo sapiens R-HSA-5655253 | 1/43 | 0.617864 | | 0.732056 | 0 | | | 0 | 1.053666 | | | 0.507327 |
| Beta-catenin independent WNT signaling Homo sapiens R-HSA-3858494 | 3/144 | 0.620077 | | 0.732467 | 0 | | | 0 | 0.941065 | | | 0.449747 |
| Peptide ligand-binding receptors Homo sapiens R-HSA-375276 | 4/193 | 0.620251 | | 0.732467 | 0 | | | 0 | 0.935904 | | | 0.447017 |
| Influenza Infection Homo sapiens R-HSA-168254 | 3/147 | 0.633962 | | 0.746668 | 0 | | | 0 | 0.921317 | | | 0.419906 |
| RMTs methylate histone arginines Homo sapiens R-HSA-3214858 | 1/45 | 0.634603 | | 0.746668 | 0 | | | 0 | 1.005669 | | | 0.457333 |
| Anchoring of the basal body to the plasma membrane Homo sapiens R-HSA-5620912 | 2/97 | 0.635396 | | 0.746668 | 0 | | | 0 | 0.931244 | | | 0.422326 |
| Potassium Channels Homo sapiens R-HSA-1296071 | 2/99 | 0.646442 | | 0.75717 | 0 | | | 0 | 0.911949 | | | 0.397858 |
| Hedgehog 'off' state Homo sapiens R-HSA-5610787 | 2/99 | 0.646442 | | 0.75717 | 0 | | | 0 | 0.911949 | | | 0.397858 |
| Nucleotide-binding domain. leucine rich repeat containing receptor (NLR) signaling pathways Homo sapiens R-HSA-168643 | 1/47 | 0.650611 | | 0.759803 | 0 | | | 0 | 0.961846 | | | 0.413442 |
| Infectious disease Homo sapiens R-HSA-5663205 | 7/348 | 0.651851 | | 0.759803 | 0 | | | 0 | 0.906859 | | | 0.388081 |
| Stimuli-sensing channels Homo sapiens R-HSA-2672351 | 2/100 | 0.651865 | | 0.759803 | 0 | | | 0 | 0.902597 | | | 0.386238 |
| Transport of glucose and other sugars. bile salts and organic acids. metal ions and amine compounds Homo sapiens R-HSA-425366 | 2/101 | 0.657221 | | 0.763645 | 0 | | | 0 | 0.893434 | | | 0.375005 |
| EPH-ephrin mediated repulsion of cells Homo sapiens R-HSA-3928665 | 1/48 | 0.658351 | | 0.763645 | 0 | | | 0 | 0.941333 | | | 0.393493 |
| Pyruvate metabolism and Citric Acid (TCA) cycle Homo sapiens R-HSA-71406 | 1/48 | 0.658351 | | 0.763645 | 0 | | | 0 | 0.941333 | | | 0.393493 |
| Retrograde transport at the Trans-Golgi-Network Homo sapiens R-HSA-6811440 | 1/49 | 0.66592 | | 0.771178 | 0 | | | 0 | 0.921674 | | | 0.37474 |
| Chondroitin sulfate/dermatan sulfate metabolism Homo sapiens R-HSA-1793185 | 1/50 | 0.673321 | | 0.777242 | 0 | | | 0 | 0.902818 | | | 0.357095 |
| Deadenylation-dependent mRNA decay Homo sapiens R-HSA-429914 | 1/50 | 0.673321 | | 0.777242 | 0 | | | 0 | 0.902818 | | | 0.357095 |
| Platelet degranulation Homo sapiens R-HSA-114608 | 2/105 | 0.67799 | | 0.781376 | 0 | | | 0 | 0.858561 | | | 0.333656 |
| Degradation of the extracellular matrix Homo sapiens R-HSA-1474228 | 2/106 | 0.68302 | | 0.78577 | 0 | | | 0 | 0.850262 | | | 0.324147 |
| Antigen processing: Ubiquitination & Proteasome degradation Homo sapiens R-HSA-983168 | 5/260 | 0.683992 | | 0.78577 | 0 | | | 0 | 0.86611 | | | 0.328957 |
| Nucleotide Excision Repair Homo sapiens R-HSA-5696398 | 2/108 | 0.692886 | | 0.794716 | 0 | | | 0 | 0.834134 | | | 0.306035 |
| Arachidonic acid metabolism Homo sapiens R-HSA-2142753 | 1/53 | 0.694557 | | 0.795362 | 0 | | | 0 | 0.850602 | | | 0.310028 |
| Cell Cycle. Mitotic Homo sapiens R-HSA-69278 | 9/462 | 0.695789 | | 0.795504 | 0 | | | 0 | 0.876604 | | | 0.317952 |
| Response to elevated platelet cytosolic Ca2+ Homo sapiens R-HSA-76005 | 2/110 | 0.702498 | | 0.800625 | 0 | | | 0 | 0.818603 | | | 0.289059 |
| O-linked glycosylation Homo sapiens R-HSA-5173105 | 2/110 | 0.702498 | | 0.800625 | 0 | | | 0 | 0.818603 | | | 0.289059 |
| GABA receptor activation Homo sapiens R-HSA-977443 | 1/55 | 0.707944 | | 0.803667 | 0 | | | 0 | 0.819014 | | | 0.282879 |
| Regulation of cholesterol biosynthesis by SREBP (SREBF) Homo sapiens R-HSA-1655829 | 1/55 | 0.707944 | | 0.803667 | 0 | | | 0 | 0.819014 | | | 0.282879 |
| M Phase Homo sapiens R-HSA-68886 | 5/268 | 0.7092 | | 0.803667 | 0 | | | 0 | 0.839417 | | | 0.288439 |
| Fatty acid. triacylglycerol. and ketone body metabolism Homo sapiens R-HSA-535734 | 4/217 | 0.709645 | | 0.803667 | 0 | | | 0 | 0.829421 | | | 0.284484 |
| tRNA processing in the nucleus Homo sapiens R-HSA-6784531 | 1/57 | 0.720745 | | 0.814708 | 0 | | | 0 | 0.789683 | | | 0.258597 |
| Class A/1 (Rhodopsin-like receptors) Homo sapiens R-HSA-373076 | 6/323 | 0.721663 | | 0.814708 | 0 | | | 0 | 0.835282 | | | 0.272466 |
| rRNA modification in the nucleus Homo sapiens R-HSA-6790901 | 1/58 | 0.726935 | | 0.819371 | 0 | | | 0 | 0.775789 | | | 0.247414 |
| Translocation of GLUT4 to the plasma membrane Homo sapiens R-HSA-1445148 | 1/60 | 0.738905 | | 0.827666 | 0 | | | 0 | 0.749414 | | | 0.226762 |
| Cleavage of Growing Transcript in the Termination Region Homo sapiens R-HSA-109688 | 1/60 | 0.738905 | | 0.827666 | 0 | | | 0 | 0.749414 | | | 0.226762 |
| RNA Polymerase II Transcription Termination Homo sapiens R-HSA-73856 | 1/60 | 0.738905 | | 0.827666 | 0 | | | 0 | 0.749414 | | | 0.226762 |
| Post-Elongation Processing of the Transcript Homo sapiens R-HSA-76044 | 1/60 | 0.738905 | | 0.827666 | 0 | | | 0 | 0.749414 | | | 0.226762 |
| Cell-cell junction organization Homo sapiens R-HSA-421270 | 1/61 | 0.744693 | | 0.831554 | 0 | | | 0 | 0.736886 | | | 0.217222 |
| TP53 Regulates Transcription of DNA Repair Genes Homo sapiens R-HSA-6796648 | 1/61 | 0.744693 | | 0.831554 | 0 | | | 0 | 0.736886 | | | 0.217222 |
| FCERI mediated Ca+2 mobilization Homo sapiens R-HSA-2871809 | 1/62 | 0.750352 | | 0.835966 | 0 | | | 0 | 0.724769 | | | 0.208163 |
| Glycosaminoglycan metabolism Homo sapiens R-HSA-1630316 | 2/121 | 0.750972 | | 0.835966 | 0 | | | 0 | 0.742513 | | | 0.212646 |
| Rho GTPase cycle Homo sapiens R-HSA-194840 | 2/122 | 0.755024 | | 0.837541 | 0 | | | 0 | 0.736288 | | | 0.206901 |
| Collagen biosynthesis and modifying enzymes Homo sapiens R-HSA-1650814 | 1/63 | 0.755887 | | 0.837541 | 0 | | | 0 | 0.713042 | | | 0.199555 |
| Signaling by FGFR in disease Homo sapiens R-HSA-1226099 | 1/63 | 0.755887 | | 0.837541 | 0 | | | 0 | 0.713042 | | | 0.199555 |
| O-linked glycosylation of mucins Homo sapiens R-HSA-913709 | 1/66 | 0.771766 | | 0.853818 | 0 | | | 0 | 0.680028 | | | 0.176178 |
| GPCR ligand binding Homo sapiens R-HSA-500792 | 8/447 | 0.77468 | | 0.855724 | 0 | | | 0 | 0.802788 | | | 0.204956 |
| Late Phase of HIV Life Cycle Homo sapiens R-HSA-162599 | 2/128 | 0.778158 | | 0.858245 | 0 | | | 0 | 0.70101 | | | 0.175832 |
| Host Interactions of HIV factors Homo sapiens R-HSA-162909 | 2/129 | 0.781822 | | 0.860964 | 0 | | | 0 | 0.695455 | | | 0.171171 |
| G alpha (q) signalling events Homo sapiens R-HSA-416476 | 3/191 | 0.797157 | | 0.876506 | 0 | | | 0 | 0.704091 | | | 0.15962 |
| Immune System Homo sapiens R-HSA-168256 | 30/1547 | 0.798841 | | 0.877015 | 0 | | | 0 | 0.865962 | | | 0.19449 |
| Influenza Life Cycle Homo sapiens R-HSA-168255 | 2/136 | 0.806017 | | 0.883517 | 0 | | | 0 | 0.658887 | | | 0.14209 |
| Class I MHC mediated antigen processing & presentation Homo sapiens R-HSA-983169 | 5/305 | 0.807224 | | 0.883517 | 0 | | | 0 | 0.734477 | | | 0.157291 |
| G alpha (s) signalling events Homo sapiens R-HSA-418555 | 2/142 | 0.824827 | | 0.900906 | 0 | | | 0 | 0.630455 | | | 0.121414 |
| COPI-mediated anterograde transport Homo sapiens R-HSA-6807878 | 1/78 | 0.825622 | | 0.900906 | 0 | | | 0 | 0.573696 | | | 0.109931 |
| Complement cascade Homo sapiens R-HSA-166658 | 1/80 | 0.833274 | | 0.907876 | 0 | | | 0 | 0.559115 | | | 0.101979 |
| Metabolism of vitamins and cofactors Homo sapiens R-HSA-196854 | 2/148 | 0.841983 | | 0.915976 | 0 | | | 0 | 0.604359 | | | 0.103947 |
| Signal Transduction Homo sapiens R-HSA-162582 | 48/2465 | 0.846621 | | 0.916517 | 0 | | | 0 | 0.863982 | | | 0.143854 |
| Mitochondrial translation initiation Homo sapiens R-HSA-5368286 | 1/84 | 0.847587 | | 0.916517 | 0 | | | 0 | 0.53206 | | | 0.087982 |
| Mitochondrial translation termination Homo sapiens R-HSA-5419276 | 1/84 | 0.847587 | | 0.916517 | 0 | | | 0 | 0.53206 | | | 0.087982 |
| Mitochondrial translation elongation Homo sapiens R-HSA-5389840 | 1/84 | 0.847587 | | 0.916517 | 0 | | | 0 | 0.53206 | | | 0.087982 |
| Organelle biogenesis and maintenance Homo sapiens R-HSA-1852241 | 5/326 | 0.850018 | | 0.917412 | 0 | | | 0 | 0.685679 | | | 0.111421 |
| Collagen formation Homo sapiens R-HSA-1474290 | 1/85 | 0.85097 | | 0.917412 | 0 | | | 0 | 0.525699 | | | 0.084837 |
| Cell junction organization Homo sapiens R-HSA-446728 | 1/86 | 0.854277 | | 0.919107 | 0 | | | 0 | 0.519488 | | | 0.081819 |
| The citric acid (TCA) cycle and respiratory electron transport Homo sapiens R-HSA-1428517 | 2/153 | 0.855102 | | 0.919107 | 0 | | | 0 | 0.584196 | | | 0.091447 |
| Adaptive Immune System Homo sapiens R-HSA-1280218 | 13/762 | 0.86448 | | 0.926835 | 0 | | | 0 | 0.760974 | | | 0.110819 |
| Immunoregulatory interactions between a Lymphoid and a non-Lymphoid cell Homo sapiens R-HSA-198933 | 2/157 | 0.864874 | | 0.926835 | 0 | | | 0 | 0.569003 | | | 0.082603 |
| Mitochondrial translation Homo sapiens R-HSA-5368287 | 1/90 | 0.866791 | | 0.927505 | 0 | | | 0 | 0.496038 | | | 0.070912 |
| HIV Infection Homo sapiens R-HSA-162906 | 3/222 | 0.871524 | | 0.931181 | 0 | | | 0 | 0.603457 | | | 0.082983 |
| Extracellular matrix organization Homo sapiens R-HSA-1474244 | 4/283 | 0.874714 | | 0.933202 | 0 | | | 0 | 0.631054 | | | 0.084471 |
| Separation of Sister Chromatids Homo sapiens R-HSA-2467813 | 2/162 | 0.876239 | | 0.933442 | 0 | | | 0 | 0.55108 | | | 0.072807 |
| Cell Cycle Homo sapiens R-HSA-1640170 | 9/566 | 0.881812 | | 0.937986 | 0 | | | 0 | 0.709048 | | | 0.089182 |
| L1CAM interactions Homo sapiens R-HSA-373760 | 1/96 | 0.88358 | | 0.938477 | 0 | | | 0 | 0.464566 | | | 0.057501 |
| Regulation of actin dynamics for phagocytic cup formation Homo sapiens R-HSA-2029482 | 1/97 | 0.886165 | | 0.939833 | 0 | | | 0 | 0.459703 | | | 0.055556 |
| Phase II conjugation Homo sapiens R-HSA-156580 | 1/100 | 0.893583 | | 0.946301 | 0 | | | 0 | 0.445704 | | | 0.050149 |
| Cell surface interactions at the vascular wall Homo sapiens R-HSA-202733 | 1/101 | 0.895946 | | 0.946664 | 0 | | | 0 | 0.441224 | | | 0.04848 |
| Mitotic Anaphase Homo sapiens R-HSA-68882 | 2/173 | 0.898207 | | 0.946664 | 0 | | | 0 | 0.515338 | | | 0.055324 |
| Mitotic Metaphase and Anaphase Homo sapiens R-HSA-2555396 | 2/174 | 0.900014 | | 0.946664 | 0 | | | 0 | 0.512315 | | | 0.05397 |
| MHC class II antigen presentation Homo sapiens R-HSA-2132295 | 1/103 | 0.900517 | | 0.946664 | 0 | | | 0 | 0.432529 | | | 0.045323 |
| tRNA processing Homo sapiens R-HSA-72306 | 1/103 | 0.900517 | | 0.946664 | 0 | | | 0 | 0.432529 | | | 0.045323 |
| G alpha (i) signalling events Homo sapiens R-HSA-418594 | 3/240 | 0.902659 | | 0.947528 | 0 | | | 0 | 0.557106 | | | 0.057053 |
| Nonsense-Mediated Decay (NMD) Homo sapiens R-HSA-927802 | 1/106 | 0.907001 | | 0.94931 | 0 | | | 0 | 0.420106 | | | 0.041007 |
| Nonsense Mediated Decay (NMD) enhanced by the Exon Junction Complex (EJC) Homo sapiens R-HSA-975957 | 1/106 | 0.907001 | | 0.94931 | 0 | | | 0 | 0.420106 | | | 0.041007 |
| Signaling by Rho GTPases Homo sapiens R-HSA-194315 | 5/367 | 0.911022 | | 0.952125 | 0 | | | 0 | 0.606723 | | | 0.056539 |
| Respiratory electron transport. ATP synthesis by chemiosmotic coupling. and heat production by uncoupling proteins. Homo sapiens R-HSA-163200 | 1/109 | 0.913063 | | 0.952125 | 0 | | | 0 | 0.408373 | | | 0.037142 |
| Integration of energy metabolism Homo sapiens R-HSA-163685 | 1/110 | 0.914995 | | 0.952125 | 0 | | | 0 | 0.404606 | | | 0.035944 |
| Golgi-to-ER retrograde transport Homo sapiens R-HSA-8856688 | 1/110 | 0.914995 | | 0.952125 | 0 | | | 0 | 0.404606 | | | 0.035944 |
| Assembly of the primary cilium Homo sapiens R-HSA-5617833 | 2/187 | 0.920928 | | 0.956913 | 0 | | | 0 | 0.475995 | | | 0.039209 |
| RHO GTPase Effectors Homo sapiens R-HSA-195258 | 3/255 | 0.923222 | | 0.95791 | 0 | | | 0 | 0.523538 | | | 0.041823 |
| Fcgamma receptor (FCGR) dependent phagocytosis Homo sapiens R-HSA-2029480 | 1/120 | 0.932107 | | 0.965733 | 0 | | | 0 | 0.370415 | | | 0.026043 |
| RNA Polymerase II Transcription Homo sapiens R-HSA-73857 | 1/124 | 0.937947 | | 0.970383 | 0 | | | 0 | 0.358295 | | | 0.022953 |
| Ion channel transport Homo sapiens R-HSA-983712 | 2/203 | 0.941035 | | 0.972177 | 0 | | | 0 | 0.437743 | | | 0.026604 |
| Influenza Viral RNA Transcription and Replication Homo sapiens R-HSA-168273 | 1/128 | 0.943285 | | 0.973102 | 0 | | | 0 | 0.346939 | | | 0.020257 |
| Cell-Cell communication Homo sapiens R-HSA-1500931 | 1/131 | 0.946986 | | 0.97412 | 0 | | | 0 | 0.33888 | | | 0.018459 |
| ER to Golgi Anterograde Transport Homo sapiens R-HSA-199977 | 1/131 | 0.946986 | | 0.97412 | 0 | | | 0 | 0.33888 | | | 0.018459 |
| mRNA Splicing - Major Pathway Homo sapiens R-HSA-72163 | 1/134 | 0.950446 | | 0.976017 | 0 | | | 0 | 0.331185 | | | 0.016832 |
| Cardiac conduction Homo sapiens R-HSA-5576891 | 1/135 | 0.951549 | | 0.976017 | 0 | | | 0 | 0.328697 | | | 0.016325 |
| mRNA Splicing Homo sapiens R-HSA-72172 | 1/144 | 0.960432 | | 0.983724 | 0 | | | 0 | 0.307867 | | | 0.012429 |
| Metabolism of proteins Homo sapiens R-HSA-392499 | 16/1074 | 0.966751 | | 0.988155 | 0 | | | 0 | 0.656745 | | | 0.022207 |
| Signaling by GPCR Homo sapiens R-HSA-372790 | 20/1293 | 0.967511 | | 0.988155 | 0 | | | 0 | 0.680744 | | | 0.022484 |
| Transport to the Golgi and subsequent modification Homo sapiens R-HSA-948021 | 1/162 | 0.973619 | | 0.99298 | 0 | | | 0 | 0.273193 | | | 0.007304 |
| Major pathway of rRNA processing in the nucleolus Homo sapiens R-HSA-6791226 | 1/166 | 0.975892 | | 0.993657 | 0 | | | 0 | 0.266515 | | | 0.006504 |
| Platelet activation. signaling and aggregation Homo sapiens R-HSA-76002 | 2/253 | 0.97705 | | 0.993657 | 0 | | | 0 | 0.349638 | | | 0.008118 |
| rRNA processing Homo sapiens R-HSA-72312 | 1/180 | 0.982417 | | 0.996514 | 0 | | | 0 | 0.245493 | | | 0.004355 |
| SLC-mediated transmembrane transport Homo sapiens R-HSA-425407 | 2/268 | 0.982821 | | 0.996514 | 0 | | | 0 | 0.329665 | | | 0.005712 |
| Hemostasis Homo sapiens R-HSA-109582 | 6/552 | 0.984023 | | 0.996514 | 0 | | | 0 | 0.479181 | | | 0.007718 |
| Processing of Capped Intron-Containing Pre-mRNA Homo sapiens R-HSA-72203 | 1/193 | 0.986886 | | 0.997469 | 0 | | | 0 | 0.228718 | | | 0.003019 |
| Muscle contraction Homo sapiens R-HSA-397014 | 1/196 | 0.987744 | | 0.997469 | 0 | | | 0 | 0.225164 | | | 0.002777 |
| Metabolism of lipids and lipoproteins Homo sapiens R-HSA-556833 | 7/659 | 0.991372 | | 0.999727 | 0 | | | 0 | 0.466617 | | | 0.004043 |
| Metabolism Homo sapiens R-HSA-1430728 | 28/1908 | 0.994177 | | 0.999833 | 0 | | | 0 | 0.635965 | | | 0.003714 |
| Asparagine N-linked glycosylation Homo sapiens R-HSA-446203 | 1/259 | 0.997048 | | 0.999833 | 0 | | | 0 | 0.169629 | | | 5.01E-04 |
| Transmembrane transport of small molecules Homo sapiens R-HSA-382551 | 4/594 | 0.999229 | | 0.999833 | 0 | | | 0 | 0.2936 | | | 2.26E-04 |
| Post-translational protein modification Homo sapiens R-HSA-597592 | 3/521 | 0.999351 | | 0.999833 | 0 | | | 0 | 0.251185 | | | 1.63E-04 |
| Metabolism of amino acids and derivatives Homo sapiens R-HSA-71291 | 1/335 | 0.999471 | | 0.999833 | 0 | | | 0 | 0.130514 | | | 6.90E-05 |
| GPCR downstream signaling Homo sapiens R-HSA-388396 | 8/983 | 0.999833 | | 0.999833 | 0 | | | 0 | 0.351327 | | | 5.88E-05 |