**Table S1: Superpathways legend**

|  |  |
| --- | --- |
|  | **Superpathways** |
| **1** | **Immune functionality** |
| **2** | **Metabolism** |
| **3** | **Cell stress/ Apoptosis** |
| **4** | **Transcription/ Translation** |
| **5** | **Maturation/ Proliferation** |
| **6** | **Cytokine** |
| **7** | **Cell signaling** |

|  |  |
| --- | --- |
| **Pathway** | **Category** |
| 41bb | 1 |
| ace2 | 7 |
| actiny | 1 |
| agpcr | 7 |
| agr | 7 |
| ahsp | 5 |
| akap13 | 7 |
| akap95 | 5 |
| akapcentrosome | 7 |
| alk | 7 |
| arap | 1 |
| arf | 5 |
| asbcell | 1 |
| at1r | 7 |
| bad | 5 |
| barr\_mapk | 7 |
| barrestin\_SRC | 7 |
| bcellsurvival | 1 |
| bcr | 1 |
| blymphocyte | 1 |
| cacam | 7 |
| cardiacegf | 7 |
| cbl | 7 |
| ccr3 | 1 |
| cd40 | 1 |
| cdc42rac | 1 |
| cdk5 | 1 |
| cdmac | 5 |
| cell2cell | 7 |
| cellcycle | 4 |
| cftr | 7 |
| chemical | 3 |
| chrebp2 | 2 |
| ck1 | 4 |
| classic | 1 |
| comp | 1 |
| csk | 1 |
| ctl | 1 |
| ctla4 | 1 |
| cytokine | 6 |
| d4gdi | 3 |
| dc | 1 |
| dnafragment | 4 |
| dream | 7 |
| eif2 | 4 |
| eif4 | 4 |
| epha4 | 7 |
| eponfkb | 3 |
| erk | 5 |
| eryth | 5 |
| etc | 2 |
| fas | 1 |
| fcer1 | 1 |
| feeder | 2 |
| fibrinolysis | 7 |
| fmlp | 1 |
| free | 3 |
| g1 | 4 |
| g2 | 4 |
| gaba | 7 |
| glycolysis | 2 |
| gpcr | 7 |
| granulocytes | 1 |
| hdac | 4 |
| HIVnef | 3 |
| hsp27 | 3 |
| igf1mtor | 4 |
| il10 | 6 |
| il12 | 6 |
| il17 | 6 |
| il1r | 6 |
| il2 | 6 |
| IL22bp | 6 |
| il2rb | 6 |
| il4 | 6 |
| il5 | 6 |
| il7 | 6 |
| inflam | 1 |
| integrin | 7 |
| intrinsic | 7 |
| keratinocyte | 5 |
| kreb | 2 |
| lair | 1 |
| lectin | 1 |
| longevity | 7 |
| lym | 1 |
| mal | 7 |
| mapk | 7 |
| mcalpain | 1 |
| mcm | 4 |
| mef2d | 3 |
| mitochondria | 3 |
| monocyte | 1 |
| mpr | 7 |
| mta3 | 5 |
| mtor | 2 |
| myosin | 7 |
| ndkdynamin | 7 |
| nfat | 7 |
| nfkb | 7 |
| nkcells | 1 |
| nkt | 1 |
| no1 | 3 |
| no2il12 | 6 |
| nos1 | 3 |
| nuclearrs | 2 |
| p27 | 4 |
| p38mapk | 1 |
| parkin | 4 |
| pgc1a | 2 |
| pitx2 | 4 |
| plateletapp | 3 |
| plce | 7 |
| pml | 4 |
| proteasome | 1 |
| ps1 | 7 |
| ptc1 | 4 |
| pyk2 | 7 |
| rab | 1 |
| ranms | 5 |
| rb | 4 |
| rela | 1 |
| rho | 7 |
| salmonella | 3 |
| set | 3 |
| shh | 4 |
| skp2e2f | 4 |
| sodd | 1 |
| sppa | 7 |
| stathmin | 7 |
| stem | 5 |
| stress | 3 |
| tall1 | 1 |
| tcapoptosis | 3 |
| tcr | 1 |
| tcra | 1 |
| tcytotoxic | 1 |
| tgfb | 6 |
| th1th2 | 1 |
| thelper | 1 |
| tid | 6 |
| tnfr1 | 1 |
| tnfr2 | 1 |
| tob1 | 1 |
| toll | 1 |
| ucalpain | 7 |
| vdr | 5 |
| vegf | 3 |
| vip | 3 |
| vitcb | 7 |
| wnt | 7 |