

Table S12

| Category | Term | Number of genes | % of genes | p-value | Gene Symbols |
|-----------------|---|-----------------|------------|----------|--|
| GOTERM_BP_FAT | GO:0048562~embryonic organ morphogenesis | 4 | 9.52381 | 0.003876 | CHD7, FZD3, CELSR1, WNT9A |
| INTERPRO | IPR017981:GPCR, family 2-like | 3 | 7.142857 | 0.006831 | GPR123, FZD3, CELSR1 |
| GOTERM_BP_FAT | GO:0042472~inner ear morphogenesis | 3 | 7.142857 | 0.007764 | CHD7, FZD3, CELSR1 |
| GOTERM_BP_FAT | GO:0001736~establishment of planar polarity | 2 | 4.761905 | 0.009897 | FZD3, CELSR1 |
| GOTERM_BP_FAT | GO:0042471~ear morphogenesis | 3 | 7.142857 | 0.009899 | CHD7, FZD3, CELSR1 |
| GOTERM_BP_FAT | GO:0048568~embryonic organ development | 4 | 9.52381 | 0.011773 | CHD7, FZD3, CELSR1, WNT9A |
| GOTERM_BP_FAT | GO:0048839~inner ear development | 3 | 7.142857 | 0.013103 | CHD7, FZD3, CELSR1 |
| GOTERM_BP_FAT | GO:0007164~establishment of tissue polarity | 2 | 4.761905 | 0.01383 | FZD3, CELSR1 |
| GOTERM_BP_FAT | GO:0007423~sensory organ development | 4 | 9.52381 | 0.01399 | CHD7, MITF, FZD3, CELSR1 |
| UP_SEQ_FEATURE | splice variant | 17 | 40.47619 | 0.017456 | SGCZ, RASEF, PIK3C2A, MITF, DQX1, ITGA3, NFIX, RICTOR, MEGF11, FLNA, PIGN, CHD7, DTNB, SLC39A8, SRGAP3, RAPGEFL1, DCAF15 |
| GOTERM_BP_FAT | GO:0043583~ear development | 3 | 7.142857 | 0.01798 | CHD7, FZD3, CELSR1 |
| GOTERM_BP_FAT | GO:0001738~morphogenesis of a polarized epithelium | 2 | 4.761905 | 0.02165 | FZD3, CELSR1 |
| GOTERM_MF_FAT | GO:0030695~GTPase regulator activity | 4 | 9.52381 | 0.02354 | GBF1, SRGAP3, RICTOR, RAPGEFL1 |
| GOTERM_BP_FAT | GO:0031532~actin cytoskeleton reorganization | 2 | 4.761905 | 0.023595 | RICTOR, FLNA |
| GOTERM_MF_FAT | GO:0060589~nucleoside-triphosphatase regulator activity | 4 | 9.52381 | 0.024571 | GBF1, SRGAP3, RICTOR, RAPGEFL1 |
| GOTERM_MF_FAT | GO:0005085~guanyl-nucleotide exchange factor activity | 3 | 7.142857 | 0.026417 | GBF1, RICTOR, RAPGEFL1 |
| KEGG_PATHWAY | mmu04916:Melanogenesis | 3 | 7.142857 | 0.027241 | MITF, FZD3, WNT9A |
| GOTERM_BP_FAT | GO:0016055~Wnt receptor signaling pathway | 3 | 7.142857 | 0.027275 | MITF, FZD3, WNT9A |
| GOTERM_BP_FAT | GO:0030318~melanocyte differentiation | 2 | 4.761905 | 0.03134 | MITF, HPS1 |
| GOTERM_BP_FAT | GO:0050931~pigment cell differentiation | 2 | 4.761905 | 0.033267 | MITF, HPS1 |
| GOTERM_BP_FAT | GO:0048598~embryonic morphogenesis | 4 | 9.52381 | 0.033472 | CHD7, FZD3, CELSR1, WNT9A |
| SP_PIR_KEYWORDS | alternative splicing | 16 | 38.09524 | 0.03582 | RASEF, PIK3C2A, MITF, DQX1, ITGA3, NFIX, RICTOR, MEGF11, FLNA, PIGN, CHD7, DTNB, SLC39A8, SRGAP3, RAPGEFL1, DCAF15 |
| GOTERM_BP_FAT | GO:0060341~regulation of cellular localization | 3 | 7.142857 | 0.040355 | ABCA2, CELSR1, FLNA |
| SP_PIR_KEYWORDS | phosphoprotein | 20 | 47.61905 | 0.044746 | PIK3C2A, RASEF, FILIP1, MEX3B, MITF, ABCA2, NFIX, ITGA3, CELSR1, RICTOR, FLNA, CUL5, CHD7, ELOVL5, WWP1, SLC39A8, SRGAP3, EIF3J, EIF2AK2, DCAF15 |
| KEGG_PATHWAY | mmu05200:Pathways in cancer | 4 | 9.52381 | 0.048565 | MITF, FZD3, ITGA3, WNT9A |
| GOTERM_BP_FAT | GO:0043009~chordate embryonic development | 4 | 9.52381 | 0.049845 | CHD7, FZD3, CELSR1, WNT9A |