Table 4

Mature spherules versus young spherules

Up-regulated

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Input ID | Product Description | Ortholog count | Length | # TM Domains | SignalP | Computed GO Functions | FC |
| CIMG\_03805 | Possible HSP31 | 281 | 243 | 0 | N | N/A | 4.626 |
| CIMG\_12285 | hypothetical protein | 10 | 151 | 0 | N | N/A | 4.074 |
| CIMG\_08736 | hypothetical protein | 5 | 156 | 0 | N | N/A | 3.705 |
| CIMG\_07646 | hypothetical protein | 3 | 350 | 0 | N | N/A | 3.606 |
| CIMG\_07274 | Ferritin-like domain-containing protein | 105 | 455 | 0 | Y | N/A | 3.507 |
| CIMG\_13581 | hypothetical protein | 0 | 71 | 0 | N | N/A | 3.306 |
| CIMG\_05456 | Possible pre-mrna-splicing factor cef1 | 45 | 237 | 0 | N | N/A | 3.281 |
| CIMG\_08524 | dynamin family protein | 450 | 711 | 0 | N | GTPase activity | 3.186 |
| CIMG\_02168 | Possible transcription factor wer | 12 | 444 | 0 | N | N/A | 3.140 |
| CIMG\_00573 | cytochrome P450 51 | 236 | 511 | 2 | N | heme binding;iron ion binding;oxidoreductase activity | 3.064 |
| CIMG\_08156 | Possible meiotic recombination protein dmc1/lim15 homolog | 91 | 463 | 0 | N | ATP binding;DNA binding | 3.058 |
| CIMG\_04521 | DUF1399 domain-containing protein | 195 | 745 | 0 | N | N/A | 2.984 |
| CIMG\_03465 | hypothetical protein | 8 | 383 | 0 | N | N/A | 2.907 |
| CIMG\_06696 | possible dual oxidase | 508 | 295 | 2 | Y | N/A | 2.902 |
| CIMG\_06262 | Possible rest corepressor 1 | 37 | 185 | 0 | N | N/A | 2.900 |
| CIMG\_08666 | FK506-binding protein 1 | 202 | 120 | 0 | N | N/A | 2.829 |
| CIMG\_13473 | YjgH family protein | 45 | 206 | 0 | N | N/A | 2.778 |
| CIMG\_04544 | alpha-amylase AmyA | 65 | 582 | 0 | Y | alpha-amylase activity | 2.769 |
| CIMG\_01977 | hypothetical protein | 5 | 482 | 0 | Y | N/A | 2.740 |
| CIMG\_07685 | hypothetical protein | 8 | 105 | 0 | N | N/A | 2.711 |

Down-regulated

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Input ID | Product Description | Ortholog count | Length | # TM Domains | SignalP | Computed GO Functions | FC |
| CIMG\_07583 | Tyrosinase | 41 | 658 | 0 | Y | oxidoreductase activity | -4.248 |
| CIMG\_03173 | hypothetical protein | 5 | 189 | 1 | N | N/A | -3.863 |
| CIMG\_00927 | Acyl-CoA synthetase | 137 | 693 | 1 | N | catalytic activity | -3.204 |
| CIMG\_05421 | beta-glucan synthesis-associated protein KRE6 | 222 | 642 | 1 | N | hydrolase activity, hydrolyzing O-glycosyl compounds | -3.046 |
| CIMG\_03257 | cell division cycle protein Cdc20 | 172 | 599 | 0 | N | protein binding | -3.030 |
| CIMG\_03517 | hypothetical protein | 85 | 2137 | 0 | N | N/A | -2.887 |
| CIMG\_01729 | aconitate hydratase, mitochondrial | 352 | 784 | 0 | N | 4 iron, 4 sulfur cluster binding;aconitate hydratase activity | -2.844 |
| CIMG\_13686 | hypothetical protein | 0 | 94 | 0 | N | N/A | -2.806 |
| CIMG\_00254 | GTP-binding protein rhoC | 109 | 278 | 0 | N | GTP binding;GTPase activity | -2.783 |
| CIMG\_03888 | Beta-glucosidase | 1153 | 858 | 0 | Y | hydrolase activity, hydrolyzing O-glycosyl compounds | -2.731 |
| CIMG\_01317 | dethiobiotin synthase | 136 | 807 | 0 | N | pyridoxal phosphate binding;transaminase activity | -2.731 |
|  | Myosin rod fragments superfamily protein, putative | 1387 | 1271 | 0 | N | N/A | -2.703 |
| CIMG\_08907 | CIMG\_01369 | 480 | 504 | 0 | N | oxidoreductase activity | -2.660 |
| CIMG\_12964 | hypothetical protein | 0 | 168 | 0 | Y | N/A | -2.615 |
| CIMG\_00847 | GTP binding protein | 109 | 1469 | 0 | N | N/A | -2.609 |
| CIMG\_05523 | Ca2+ regulator and membrane fusion protein Fig1, putative | 111 | 268 | 4 | Y | N/A | -2.552 |
| CIMG\_13558 | DNA replication helicase Dna2 | 158 | 1659 | 0 | N | N/A | -2.523 |
| CIMG\_08747 | Putative tetratricopeptide repeat (TPR)-like superfamily protein | 232 | 702 | 0 | N | protein binding | -2.493 |
| CIMG\_01268 | MFS phospholipid transporter | 317 | 496 | 10 | N | transmembrane transporter activity | -2.492 |
| CIMG\_05728 | L-serine dehydratase | 173 | 426 | 0 | N | N/A | -2.475 |
| CIMG\_09628 | protein-tyrosine phosphatase | 171 | 600 | 0 | N | phosphatase activity;protein tyrosine/serine/threonine phosphatase activity | -2.471 |