

| Panther Category (Biological Processes)                    | Number | %    | P-Value  | Bonferroni | Benjamini | FDR (X100) |
|--|--------|------|----------|------------|-----------|------------|
| BP00060:Protein metabolism and modification                | 133    | 17.7 | 2.50E-07 | 5.50E-05   | 5.50E-05  | 0          |
| BP00125:Intracellular protein traffic                      | 52     | 6.9  | 3.80E-07 | 8.30E-05   | 4.10E-05  | 0          |
| BP00063:Protein modification                               | 126    | 16.8 | 6.70E-07 | 1.50E-04   | 4.90E-05  | 0          |
| BP00031:Nucleoside, nucleotide and nucleic acid metabolism | 138    | 18.4 | 9.40E-06 | 2.00E-03   | 5.10E-04  | 0          |
| BP00071:Proteolysis  | 200    | 26.7 | 2.10E-05 | 4.60E-03   | 9.30E-04  | 0          |
| BP00286:Cell structure                                     | 138    | 18.4 | 2.60E-05 | 5.80E-03   | 9.70E-04  | 0          |
| BP00179:Apoptosis  | 43     | 5.7  | 3.60E-05 | 7.80E-03   | 1.10E-03  | 0          |
| BP00289:Other metabolism                                   | 123    | 16.4 | 4.50E-05 | 9.80E-03   | 1.20E-03  | 0.1        |
| BP00064:Protein phosphorylation                            | 101    | 13.5 | 4.60E-05 | 1.00E-02   | 1.10E-03  | 0.1        |
| BP00133:Nuclear transport                                  | 19     | 2.5  | 2.40E-04 | 5.20E-02   | 5.30E-03  | 0.3        |
| BP00224:Cell proliferation and differentiation             | 52     | 6.9  | 5.30E-04 | 1.10E-01   | 1.10E-02  | 0.7        |
| BP00290:Lipid metabolism                                   | 20     | 2.7  | 7.10E-04 | 1.40E-01   | 1.30E-02  | 0.9        |
| BP00044:mRNA transcription regulation                      | 332    | 44.3 | 1.30E-03 | 2.50E-01   | 2.10E-02  | 1.6        |
| BP00124:Cell adhesion                                      | 34     | 4.5  | 2.20E-03 | 3.80E-01   | 3.40E-02  | 2.7        |
| BP00040:mRNA transcription                                 | 215    | 28.7 | 2.70E-03 | 4.40E-01   | 3.80E-02  | 3.3        |
| BP00137:Protein targeting and localization                 | 20     | 2.7  | 3.60E-03 | 5.50E-01   | 4.90E-02  | 4.5        |
| BP00136:Other intracellular protein traffic                | 20     | 2.7  | 5.30E-03 | 6.90E-01   | 6.60E-02  | 6.6        |
| BP00001:Carbohydrate metabolism                            | 28     | 3.7  | 5.60E-03 | 7.10E-01   | 6.60E-02  | 6.9        |
| BP00285:Cell structure and motility                        | 60     | 8    | 6.80E-03 | 7.80E-01   | 7.60E-02  | 8.4        |
| BP00110:Other receptor mediated signaling pathway          | 14     | 1.9  | 7.40E-03 | 8.00E-01   | 7.80E-02  | 9          |
| BP00008:Tricarboxylic acid pathway                         | 13     | 1.7  | 7.70E-03 | 8.20E-01   | 7.70E-02  | 9.4        |

### Legend:

The nearest gene data set from S 4 was analyzed by the DAVID gene ontology program (5) and the most significant categories that are enriched are shown. The complete set of genes used is provided in S4. The number of genes in each category (count), p value. Bonferroni and Benjamini corrected values along with associated false discovery rate (FDR) are provided from the DAVID software.