

| Enrichment<br>(fold) | Gene Ontology term  | Probe sets   |                | No. of genes<br>in pathway | P-value |
|----------------------|---|--------------|----------------|----------------------------|---------|
|                      |   | Cluster Size | within cluster |                            |         |
| 26.54                | nuclear chromosome  | 55           | 4              | 45                         | 0.000   |
| 25.28                | DNA replication initiation                                      | 535          | 14             | 17                         | 0.000   |
| 12.28                | DNA dependent ATPase activity                                   | 535          | 14             | 35                         | 0.000   |
| 11.40                | spliceosome assembly  | 535          | 13             | 35                         | 0.000   |
| 11.40                | nuclear mRNA splicing   | 535          | 13             | 35                         | 0.000   |
| 11.36                | steroid metabolism  | 47           | 4              | 123                        | 0.000   |
| 11.16                | mRNA splice site selection                                      | 535          | 12             | 33                         | 0.000   |
| 10.23                | RNA splicing  | 535          | 13             | 39                         | 0.000   |
| 9.84                 | DNA dependent DNA replication                                   | 535          | 17             | 53                         | 0.000   |
| 8.87                 | nucleosome assembly   | 535          | 13             | 45                         | 0.000   |
| 8.12                 | sterol biosynthesis   | 535          | 9              | 34                         | 0.000   |
| 7.43                 | mitosis   | 535          | 23             | 95                         | 0.000   |
| 7.35                 | M phase of mitotic cell cycle                                   | 535          | 23             | 96                         | 0.000   |
| 7.34                 | DNA replication and chromosome cycle                            | 535          | 44             | 184                        | 0.000   |
| 7.15                 | spliceosome comple  | 535          | 17             | 73                         | 0.000   |
| 7.05                 | DNA replication   | 535          | 34             | 148                        | 0.000   |
| 7.00                 | S phase of mitotic cell cycle                                   | 535          | 34             | 149                        | 0.000   |
| 6.71                 | pre-mRNA splicing factor activity                               | 535          | 14             | 64                         | 0.000   |
| 6.58                 | cyclin-dependent protein kinase activity                        | 535          | 18             | 84                         | 0.000   |
| 6.53                 | mRNA splicing   | 535          | 10             | 47                         | 0.000   |
| 6.45                 | nuclear division  | 535          | 25             | 119                        | 0.000   |
| 6.34                 | M phase   | 535          | 25             | 121                        | 0.000   |
| 6.16                 | mitotic cell cycle  | 535          | 60             | 299                        | 0.000   |
| 5.88                 | DNA packaging   | 535          | 32             | 167                        | 0.000   |
| 5.58                 | mRNA binding  | 535          | 16             | 88                         | 0.000   |
| 5.50                 | mRNA processing   | 535          | 24             | 134                        | 0.000   |
| 5.34                 | chromatin assembly/disassembly                                  | 535          | 16             | 92                         | 0.000   |
| 5.24                 | DNA recombination   | 535          | 7              | 41                         | 0.000   |
|                      | cyclin-dependent protein kinase\\, intrinsic regulator activity | 535          | 11             | 65                         | 0.000   |
| 5.19                 | DNA metabolism  | 535          | 87             | 520                        | 0.000   |
| 4.91                 | virion  | 535          | 8              | 50                         | 0.000   |
| 4.88                 | amino acid biosynthesis   | 535          | 7              | 44                         | 0.001   |
| 4.58                 | steroid biosynthesis  | 535          | 10             | 67                         | 0.001   |
| 4.58                 | nuclear organization and biogenesis                             | 535          | 27             | 181                        | 0.000   |
| 4.51                 | nucleolus   | 535          | 15             | 102                        | 0.000   |
| 4.45                 | RNA processing  | 535          | 40             | 276                        | 0.000   |
| 4.45                 | sterol metabolism   | 535          | 10             | 69                         | 0.000   |
|                      | chromosome organization and biogenesis (sensu Eukarya)          | 535          | 25             | 173                        | 0.000   |
| 4.44                 | chromatin   | 535          | 18             | 125                        | 0.000   |
| 4.38                 | RNA metabolism  | 535          | 41             | 287                        | 0.000   |
| 4.19                 | cholesterol metabolism  | 535          | 9              | 66                         | 0.000   |
| 4.09                 | amine biosynthesis  | 535          | 8              | 60                         | 0.001   |
| 4.08                 | DNA repair  | 298          | 12             | 162                        | 0.000   |
| 4.06                 | nuclear membrane  | 535          | 9              | 68                         | 0.000   |

|      |  |     |    |     |       |
|------|--|-----|----|-----|-------|
|      | establishment and/or maintenance of                                |     |    |     |       |
| 3.99 | chromatin architecture   | 535 | 19 | 146 | 0.000 |
| 3.83 | cell cycle   | 535 | 84 | 673 | 0.000 |
| 3.77 | chromosome   | 535 | 22 | 179 | 0.000 |
| 3.71 | protein kinase regulator activity                                  | 535 | 11 | 91  | 0.000 |
| 3.25 | unlocalized transferase activity\\, transferring one-carbon groups | 535 | 11 | 104 | 0.001 |
| 3.11 | lipid biosynthesis   | 535 | 14 | 138 | 0.000 |
| 3.08 | kinase regulator activity  | 535 | 20 | 199 | 0.000 |
| 3.04 | nucleotide metabolism  | 535 | 12 | 121 | 0.001 |
| 3.03 | methyltransferase activity   | 535 | 15 | 152 | 0.000 |
| 2.98 | transferase activity\\, transferring acyl groups                   | 535 | 13 | 134 | 0.000 |
| 2.95 | protein targeting  | 535 | 15 | 156 | 0.000 |
| 2.88 | RNA binding  | 535 | 21 | 224 | 0.000 |
| 2.83 | lyase activity   | 535 | 53 | 575 | 0.000 |
| 2.62 | response to DNA damage stimulus                                    | 513 | 15 | 185 | 0.001 |
| 2.60 | response to endogenous stimulus                                    | 513 | 15 | 185 | 0.001 |
| 2.51 | ribonucleoprotein complex  | 535 | 36 | 441 | 0.000 |
| 2.43 | response to stress   | 298 | 27 | 611 | 0.000 |
| 2.38 | regulation of cell cycle   | 535 | 25 | 323 | 0.000 |
| 2.37 | enzyme regulator activity  | 205 | 17 | 574 | 0.000 |
| 2.27 | ATPase activity\\, coupled   | 535 | 26 | 351 | 0.000 |