**Table S1. Significantly enriched functional annotation groups**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Whole genome** | **q-value** | **Chromosome2** | **q-value** | **Chromosome3** | **q-value** |
| protein metabolic process | 0.0008 | metallopeptidase activity | 0.0045 | proteolysis | 0.00125 |
| cellular macromolecule biosynthetic process | 0.0008 | proteolysis | 0.0045 | response to organic substance | 0.00126 |
| peptidase activity | 0.0008 | protein metabolic process | 0.0045 | peptidase activity | 0.00125 |
| macromolecule metabolic process | 0.0008 | regulation of steroid hormone secretion | 0.0057 | peptidase activity, acting on L-amino acid peptides | 0.00125 |
| endopeptidase activity | 0.0008 | endomitotic cell cycle | 0.0086 | translation | 0.00350 |
| regulation of steroid hormone secretion | 0.0008 | detection of pheromone | 0.0100 | cellular macromolecule biosynthetic process | 0.00350 |
| translation | 0.0008 | peptidase activity, acting on L-amino acid peptides | 0.0131 | macromolecule biosynthetic process | 0.00860 |
| proteolysis | 0.0008 | metalloendopeptidase activity | 0.0170 | endopeptidase activity | 0.00980 |
| detection of pheromone | 0.0008 | macromolecule metabolic process | 0.0238 | protein metabolic process | 0.01280 |
| macromolecule biosynthetic process | 0.0008 | peptidase activity | 0.0373 | macromolecule metabolic process | 0.01580 |
| peptidase activity, acting on L-amino acid peptides | 0.0008 | endopeptidase activity | 0.0370 |  |  |