

Table 4 Gene Ontology classification of molecular functions of gene products in the whole set of assembled transcripts and in isoforms generated by alternatively spliced genes in cotton

| GO ID | GO Description | Total | AS | AS (%) |
|------------|---|-------|-------|--------|
| GO:0005488 | binding | 9315 | 4254 | 45.7 |
| GO:0003824 | catalytic activity | 5984 | 2644 | 44.2 |
| GO:0000166 | nucleotide binding | 3704 | 1648 | 44.5 |
| GO:0016740 | transferase activity | 3682 | 1730 | 47.0 |
| GO:0016787 | hydrolase activity | 3236 | 1446 | 44.7 |
| GO:0005515 | protein binding | 2614 | 1318 | 50.4 |
| GO:0003677 | DNA binding | 2174 | 1112 | 51.1 |
| GO:0003723 | RNA binding | 1836 | 792 | 43.1 |
| GO:0003676 | nucleic acid binding | 1697 | 847 | 49.9 |
| GO:0005215 | transporter activity | 1254 | 579 | 46.2 |
| GO:0016301 | kinase activity | 1188 | 652 | 54.9 |
| GO:0003700 | DNA binding transcription factor activity | 1150 | 643 | 55.9 |
| GO:0005198 | structural molecule activity | 819 | 245 | 29.9 |
| GO:0004518 | nuclease activity | 674 | 285 | 42.3 |
| GO:0030234 | enzyme regulator activity | 387 | 159 | 41.1 |
| GO:0004871 | signal transducer activity | 359 | 203 | 56.5 |
| GO:0030246 | carbohydrate binding | 309 | 118 | 38.2 |
| GO:0008289 | lipid binding | 291 | 146 | 50.2 |
| GO:0008135 | translation factor activity, RNA binding | 267 | 84 | 31.5 |
| GO:0004872 | receptor activity | 232 | 138 | 59.5 |
| GO:0003682 | chromatin binding | 158 | 84 | 53.2 |
| GO:0003774 | motor activity | 134 | 77 | 57.5 |
| GO:0005102 | receptor binding | 125 | 51 | 40.8 |
| GO:0045182 | translation regulator activity | 8 | 6 | 75.0 |
| GO:0019825 | oxygen binding | 7 | 3 | 42.9 |
| Total | | 41604 | 19264 | 46.3 |