**Supplementary Table 7.** Functional annotation of 44 candidate genes identified in the genomic region interval (Pv04: 477,217 bp...1,182,084 bp) of the major locus Co-Realce which are related to disease resistance metabolic pathways in plants.

|  |  |
| --- | --- |
| Candidate gene | Functional annotation |
| Phvul.004G007750 | Leucine-rich repeat (LRR) |
| Phvul.004G007900 |
| Phvul.004G008001 |
| Phvul.004G008101 |
| Phvul.004G008200 |
| Phvul.004G008351 |
| Phvul.004G008400 |
| Phvul.004G008450 |
| Phvul.004G008560 |
| Phvul.004G008620 |
| Phvul.004G008680 |
| Phvul.004G008740 |
| Phvul.004G008981 |
| Phvul.004G009041 |
| Phvul.004G009281 |
| Phvul.004G009461 |
| Phvul.004G009521 |
| Phvul.004G009821 |
| Phvul.004G009909 |
| Phvul.004G009918 |
| Phvul.004G009936 |
| Phvul.004G009100 |
| Phvul.004G009136 |
| Phvul.004G009154 |
| Phvul.004G008900 |
| Phvul.004G008909 |
| Phvul.004G008918 |
| Phvul.004G009300 |
| Phvul.004G009500 |
| Phvul.004G009341 | Pentatricopeptide repeat (PPR) |
| Phvul.004G009641 |
| Phvul.004G009900 |
| Phvul.004G009945 |
| Phvul.004G008500 |
| Phvul.004G007300 | Phosphate-transporting ATPase/ABC |
| Phvul.004G008301 | Phospholipid-transporting ATPase 10-related |
| Phvul.004G009145 | Phospholipid-transporting ATPase 8-related |
| Phvul.004G006800a | Nuclear pore complex protein - Nup210, GP210 |
| Phvul.004G006900a | glycosylphosphatidylinositol transamidase (GAA1) |
| Phvul.004G007100 | Galactinol-sucrose galactosyltransferase 5-Related |
| Phvul.004G009400 | E3 Ubiquitin-protein ligase UPL6 |
| Phvul.004G007200 | Methyl-CPG-binding domain |
| Phvul.004G009401 | RNA recognition motif (RRM or RNP domain) |
| Phvul.004G007600 | RNA-binding protein 26 (RBM26) |

aCandidate genes also annotated in the refinement analysis of the major locus Co-Realce (Pv04: 485,246...505,651).