Supplementary Table 2:genes within the dominant domain

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene ID** | **Gene Name** | **Description** | **Chro** | **Start** | **End** | **Strand** | **transcritpion length (bp)** | **Associated domain** | **protein length (aa)** | **MW (kDa)** | **charge** | **Pl** | **GRAVY** |
| Gorai.002G032600 | WAG2 | Serine/threonine-protein kinase WAG2 | Chr02 | 2,437,483 | 2,438,790 | - | 1,308 | PF00069 | 435 | 48.404 | 11.5 | 8.238 | -0.199 |
| Gorai.002G032800 | At1g56140 | Probable LRR receptor-like serine/threonine-protein kinase At1g56140 | Chr02 | 2,455,231 | 2,459,351 | - | 4,121 | PF00069 | 392 | 44.023 | 6 | 8.252 | -0.355 |
| Gorai.002G034600 | At1g11300 | G-type lectin S-receptor-like serine/threonine-protein kinase At1g11300 | Chr02 | 2,642,014 | 2,645,383 | + | 3,370 | PF00069 | 510 | 58.286 | -2 | 6.144 | -0.379 |
| Gorai.002G035400 | At1g11330 | G-type lectin S-receptor-like serine/threonine-protein kinase At1g11330 | Chr02 | 2,739,456 | 2,740,916 | + | 1,461 | PF00069 | 90 | 10.351 | 5 | 10.344 | -0.546 |
| Gorai.002G039900 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr02 | 3,263,375 | 3,266,831 | + | 3,457 | PF00069 | 579 | 65.377 | 0.5 | 6.556 | -0.145 |
| Gorai.002G040100 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr02 | 3,287,202 | 3,288,171 | + | 970 | PF00069 | 246 | 27.784 | 1.5 | 6.881 | -0.087 |
| Gorai.002G040200 | SAPK2 | Serine/threonine-protein kinase SAPK2 | Chr02 | 3,297,732 | 3,301,961 | + | 4,230 | PF00069 | 127 | 14.962 | 6 | 9.708 | 0.251 |
| Gorai.002G041000 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr02 | 3,373,558 | 3,376,952 | - | 3,395 | PF00069 | 421 | 47.982 | 18.5 | 9.075 | -0.076 |
| Gorai.002G041100 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr02 | 3,385,886 | 3,389,203 | - | 3,318 | PF00069 | 574 | 65.504 | 13 | 8.286 | -0.091 |
| Gorai.002G041200 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr02 | 3,391,329 | 3,395,199 | - | 3,871 | PF00069 | 374 | 42.306 | 9.5 | 8.271 | -0.179 |
| Gorai.002G041500 | GDPDL2 | Glycerophosphodiester phosphodiesterase protein kinase domain-containing GDPDL2 | Chr02 | 3,430,806 | 3,434,520 | - | 3,715 | PF00069 | 663 | 75.975 | 1.5 | 6.645 | -0.165 |
| Gorai.002G041800 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr02 | 3,452,762 | 3,456,092 | - | 3,331 | PF00069 | 575 | 64.708 | 1 | 6.633 | -0.06 |
| Gorai.002G042000 | GDPDL2 | Glycerophosphodiester phosphodiesterase protein kinase domain-containing GDPDL2 | Chr02 | 3,458,847 | 3,462,164 | - | 3,318 | PF00069 | 508 | 57.323 | 10 | 8.055 | -0.053 |
| Gorai.002G042100 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr02 | 3,481,977 | 3,485,044 | - | 3,068 | PF00069 | 432 | 49.143 | 7.5 | 7.641 | -0.125 |
| Gorai.002G042300 | GDPDL2 | Glycerophosphodiester phosphodiesterase protein kinase domain-containing GDPDL2 | Chr02 | 3,497,429 | 3,501,800 | - | 4,372 | PF00069 | 661 | 75.287 | 12.5 | 7.843 | -0.102 |
| Gorai.002G042600 | GDPDL2 | Glycerophosphodiester phosphodiesterase protein kinase domain-containing GDPDL2 | Chr02 | 3,522,060 | 3,523,599 | - | 1,540 | PF00069 | 342 | 38.534 | -2.5 | 6.133 | -0.22 |
| Gorai.002G042700 | GDPDL2 | Glycerophosphodiester phosphodiesterase protein kinase domain-containing GDPDL2 | Chr02 | 3,529,782 | 3,534,155 | - | 4,374 | PF00069 | 550 | 62.247 | 6 | 7.127 | -0.18 |
| Gorai.002G044400 | At1g78530 | Receptor-like serine/threonine-protein kinase At1g78530 | Chr02 | 3,662,043 | 3,664,001 | - | 1,959 | PF00069 | 353 | 40.152 | 2.5 | 6.897 | -0.072 |
| Gorai.002G045300 | MPK19 | Mitogen-activated protein kinase 19 | Chr02 | 3,780,731 | 3,786,538 | + | 5,808 | PF00069 | 594 | 67.492 | 25 | 9.504 | -0.43 |
| Gorai.002G047500 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr02 | 4,014,345 | 4,018,314 | - | 3,970 | PF00069 | 618 | 70.27 | 16.5 | 8.623 | 0.044 |
| Gorai.002G047800 | GDPDL2 | Glycerophosphodiester phosphodiesterase protein kinase domain-containing GDPDL2 | Chr02 | 4,040,748 | 4,043,439 | - | 2,692 | PF00069 | 642 | 71.783 | 12.5 | 8.234 | 0.004 |
| Gorai.002G047900 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr02 | 4,047,143 | 4,049,969 | - | 2,827 | PF00069 | 640 | 71.929 | 14.5 | 8.374 | 0.035 |
| Gorai.002G049100 | GSO2 | LRR receptor-like serine/threonine-protein kinase GSO2 | Chr02 | 4,207,218 | 4,213,638 | + | 6,421 | PF00069 | 966 | 106.776 | 28 | 9.276 | 0.098 |
| Gorai.002G049400 | At3g47570 | Probable LRR receptor-like serine/threonine-protein kinase At3g47570 | Chr02 | 4,243,437 | 4,246,114 | + | 2,678 | PF00069 | 785 | 86.469 | 5 | 7.068 | -0.009 |
| Gorai.002G051100 | At3g47570 | Probable LRR receptor-like serine/threonine-protein kinase At3g47570 | Chr02 | 4,430,273 | 4,432,880 | + | 2,608 | PF00069 | 783 | 86.798 | -3.5 | 6.138 | 0.014 |
| Gorai.002G051300 | At3g47570 | Probable LRR receptor-like serine/threonine-protein kinase At3g47570 | Chr02 | 4,446,423 | 4,452,960 | - | 6,538 | PF00069 | 1,040 | 115.085 | -0.5 | 6.47 | 0.049 |
| Gorai.002G051700 | FLS2 | LRR receptor-like serine/threonine-protein kinase FLS2 | Chr02 | 4,492,946 | 4,497,985 | - | 5,040 | PF00069 | 1,111 | 123.712 | 7.5 | 7.098 | 0.05 |
| Gorai.002G051800 | At3g47570 | Probable LRR receptor-like serine/threonine-protein kinase At3g47570 | Chr02 | 4,525,639 | 4,526,449 | - | 811 | PF00069 | 184 | 20.762 | -2.5 | 5.648 | 0.024 |
| Gorai.002G052200 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr02 | 4,587,439 | 4,590,520 | + | 3,082 | PF00069 | 667 | 74.074 | 8.5 | 7.657 | -0.004 |
| Gorai.002G052300 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr02 | 4,593,830 | 4,598,814 | + | 4,985 | PF00069 | 650 | 71.784 | 9.5 | 7.883 | -0.006 |
| Gorai.002G064300 | At3g47570 | Probable LRR receptor-like serine/threonine-protein kinase At3g47570 | Chr02 | 7,504,366 | 7,506,889 | + | 2,524 | PF00069 | 744 | 81.942 | -8.5 | 5.611 | 0.054 |
| Gorai.002G067900 | svkA | Serine/threonine-protein kinase svkA | Chr02 | 7,883,154 | 7,892,417 | - | 9,264 | PF00069 | 724 | 80.788 | 5 | 7.842 | -0.669 |
| Gorai.002G068500 | PSKR2 | Phytosulfokine receptor 2 | Chr02 | 7,919,344 | 7,923,685 | - | 4,342 | PF00069 | 1,052 | 115.29 | 5.5 | 6.937 | 0.039 |
| Gorai.002G069600 | At2g19130 | G-type lectin S-receptor-like serine/threonine-protein kinase At2g19130 | Chr02 | 8,081,179 | 8,083,955 | + | 2,777 | PF00069 | 817 | 91.471 | 17.5 | 8.234 | -0.163 |
| Gorai.002G087300 | PBS1 | Serine/threonine-protein kinase PBS1 | Chr02 | 11,042,157 | 11,044,833 | - | 2,677 | PF00069 | 384 | 42.673 | -11.5 | 4.735 | -0.509 |
| Gorai.002G088800 | CPK9 | Calcium-dependent protein kinase 9 | Chr02 | 11,253,284 | 11,257,287 | + | 4,004 | PF00069 | 537 | 60.458 | 0.5 | 6.565 | -0.494 |
| Gorai.002G091000 | mkkA | Mitogen-activated protein kinase kinase kinase A | Chr02 | 11,471,210 | 11,472,634 | - | 1,425 | PF00069 | 437 | 48.838 | -23.5 | 4.375 | -0.28 |
| Gorai.002G096000 | At1g64210 | Putative inactive receptor-like protein kinase At1g64210 | Chr02 | 12,121,983 | 12,123,813 | - | 1,831 | PF00069 | 583 | 65.766 | 15 | 8.715 | -0.187 |
| Gorai.002G096100 | WNK11 | Probable serine/threonine-protein kinase WNK11 | Chr02 | 12,124,912 | 12,126,689 | - | 1,778 | PF00069 | 296 | 33.941 | -6 | 5.269 | -0.503 |
| Gorai.002G100600 | LECRKS7 | Probable L-type lectin-domain containing receptor kinase S.7 | Chr02 | 12,756,220 | 12,758,376 | + | 2,157 | PF00069 | 658 | 72.693 | 4 | 6.904 | -0.065 |
| Gorai.002G102000 | D6PKL2 | Serine/threonine-protein kinase D6PKL2 | Chr02 | 13,031,190 | 13,034,544 | - | 3,355 | PF00069 | 583 | 64.217 | 16 | 8.519 | -0.366 |
| Gorai.002G103300 | At4g26540 | Probable LRR receptor-like serine/threonine-protein kinase At4g26540 | Chr02 | 13,133,249 | 13,137,153 | + | 3,905 | PF00069 | 1,100 | 119.483 | -8.5 | 5.875 | -0.021 |
| Gorai.002G104400 | RLK1 | G-type lectin S-receptor-like serine/threonine-protein kinase RLK1 | Chr02 | 13,497,346 | 13,499,907 | + | 2,562 | PF00069 | 833 | 92.949 | -2 | 6.288 | -0.176 |
| Gorai.002G107100 | PK1 | Putative receptor protein kinase ZmPK1 | Chr02 | 14,471,183 | 14,473,643 | - | 2,461 | PF00069 | 746 | 83.527 | 2.5 | 6.713 | -0.17 |
| Gorai.002G112300 | CDC2D | Cell division control protein 2 homolog D | Chr02 | 15,840,776 | 15,842,888 | + | 2,113 | PF00069 | 311 | 35.536 | 12 | 9.311 | -0.296 |
| Gorai.002G114100 | IRE1B | Serine/threonine-protein kinase/endoribonuclease IRE1b | Chr02 | 16,113,205 | 16,117,138 | + | 3,934 | PF00069 | 882 | 100.148 | 8 | 7.203 | -0.358 |
| Gorai.002G115600 | CDL1 | Serine/threonine-protein kinase CDL1 | Chr02 | 16,377,563 | 16,382,539 | + | 4,977 | PF00069 | 393 | 43.554 | 12.5 | 8.655 | -0.378 |
| Gorai.002G122500 | RBK2 | Receptor-like cytosolic serine/threonine-protein kinase RBK2 | Chr02 | 17,602,615 | 17,606,296 | - | 3,682 | PF00069 | 735 | 83.071 | 17 | 8.404 | -0.379 |
| Gorai.002G131000 | At3g47570 | Probable LRR receptor-like serine/threonine-protein kinase At3g47570 | Chr02 | 20,531,139 | 20,534,323 | - | 3,185 | PF00069 | 1,012 | 110.706 | 3.5 | 6.74 | -0.021 |
| Gorai.002G133000 | At3g47570 | Probable LRR receptor-like serine/threonine-protein kinase At3g47570 | Chr02 | 20,904,410 | 20,907,941 | + | 3,532 | PF00069 | 1,036 | 113.113 | 8.5 | 7.143 | -0.006 |
| Gorai.002G134400 | At5g67200 | Probable inactive receptor kinase At5g67200 | Chr02 | 21,416,035 | 21,418,806 | + | 2,772 | PF00069 | 649 | 71.732 | 8 | 7.191 | -0.093 |
| Gorai.002G144800 | PDPK1 | 3-phosphoinositide-dependent protein kinase 1 | Chr02 | 26,316,690 | 26,326,573 | + | 9,884 | PF00069 | 499 | 55.748 | 3 | 7.235 | -0.415 |
| Gorai.002G149600 | BRI1 | Protein BRASSINOSTEROID INSENSITIVE 1 | Chr02 | 28,972,597 | 28,976,252 | - | 3,656 | PF00069 | 1,194 | 130.233 | 7.5 | 7.027 | -0.022 |
| Gorai.002G153600 | CPK2 | Calcium-dependent protein kinase 2 | Chr02 | 31,402,668 | 31,405,631 | + | 2,964 | PF00069 | 591 | 66.337 | -13.5 | 5.181 | -0.673 |
| Gorai.002G161100 | PERK5 | Proline-rich receptor-like protein kinase PERK5 | Chr02 | 36,429,613 | 36,431,008 | + | 1,396 | PF00069 | 206 | 23.414 | 9 | 8.731 | -0.468 |
| Gorai.002G163100 | At1g09600 | Probable serine/threonine-protein kinase At1g09600 | Chr02 | 39,005,575 | 39,012,142 | + | 6,568 | PF00069 | 739 | 82.618 | 30 | 9.589 | -0.624 |
| Gorai.002G178700 | MPK17 | Mitogen-activated protein kinase 17 | Chr02 | 46,383,579 | 46,388,167 | + | 4,589 | PF00069 | 506 | 57.926 | 6.5 | 7.249 | -0.393 |
| Gorai.002G188500 | MKK7 | Mitogen-activated protein kinase kinase 7 | Chr02 | 50,724,443 | 50,725,348 | - | 906 | PF00069 | 301 | 34.067 | 2.5 | 6.895 | -0.082 |
| Gorai.002G197700 | RBK2 | Receptor-like cytosolic serine/threonine-protein kinase RBK2 | Chr02 | 53,524,784 | 53,528,539 | + | 3,756 | PF00069 | 684 | 76.037 | -2.5 | 6.26 | -0.403 |
| Gorai.002G211900 | IKU2 | Receptor-like protein kinase HAIKU2 | Chr02 | 55,917,241 | 55,921,239 | + | 3,999 | PF00069 | 996 | 109.659 | 3.5 | 6.779 | -0.08 |
| Gorai.002G214800 | At5g23170 | Serine/threonine-protein kinase-like protein At5g23170 | Chr02 | 56,388,953 | 56,389,990 | - | 1,038 | PF00069 | 345 | 38.34 | 11.5 | 9.058 | -0.102 |
| Gorai.002G218100 | ASK10 | Shaggy-related protein kinase kappa | Chr02 | 56,980,865 | 56,985,951 | + | 5,087 | PF00069 | 422 | 47.849 | 13.5 | 8.462 | -0.327 |
| Gorai.002G224000 | LECRKS5 | Probable L-type lectin-domain containing receptor kinase S.5 | Chr02 | 57,953,895 | 57,955,832 | + | 1,938 | PF00069 | 645 | 72.644 | 8 | 7.815 | -0.227 |
| Gorai.002G224100 | LECRKS5 | Probable L-type lectin-domain containing receptor kinase S.5 | Chr02 | 57,966,443 | 57,968,783 | + | 2,341 | PF00069 | 657 | 73.487 | 0 | 6.516 | -0.269 |
| Gorai.002G229400 | NEK7 | Serine/threonine-protein kinase Nek7 | Chr02 | 58,863,422 | 58,870,317 | + | 6,896 | PF00069 | 643 | 70.986 | 1.5 | 6.638 | -0.54 |
| Gorai.002G243600 | PXC1 | Leucine-rich repeat receptor-like protein kinase PXC1 | Chr02 | 60,775,425 | 60,777,957 | + | 2,533 | PF00069 | 674 | 74.23 | 6 | 7.706 | -0.234 |
| Gorai.002G244100 | RLK1 | G-type lectin S-receptor-like serine/threonine-protein kinase RLK1 | Chr02 | 60,818,675 | 60,821,101 | - | 2,427 | PF00069 | 654 | 73.953 | 12 | 7.975 | 0.016 |
| Gorai.002G244400 | dsk1 | Protein kinase dsk1 | Chr02 | 60,856,168 | 60,863,202 | + | 7,035 | PF00069 | 625 | 70.731 | 11.5 | 7.761 | -0.589 |
| Gorai.002G249200 | LECRK81 | L-type lectin-domain containing receptor kinase VIII.1 | Chr02 | 61,327,122 | 61,329,702 | + | 2,581 | PF00069 | 700 | 75.404 | 1 | 6.613 | -0.028 |
| Gorai.002G256700 | LECRKS4 | L-type lectin-domain containing receptor kinase S.4 | Chr02 | 61,871,757 | 61,874,150 | + | 2,394 | PF00069 | 672 | 74.028 | -1 | 6.406 | -0.036 |
| Gorai.002G260200 | At3g47570 | Probable LRR receptor-like serine/threonine-protein kinase At3g47570 | Chr02 | 62,129,272 | 62,132,841 | - | 3,570 | PF00069 | 950 | 104.311 | 4 | 6.811 | 0.036 |
| Gorai.007G009000 | ERL1 | LRR receptor-like serine/threonine-protein kinase ERL1 | Chr07 | 705,535 | 711,714 | - | 6,180 | PF00069 | 993 | 110.098 | 2 | 6.643 | -0.037 |
| Gorai.007G011900 | KIN10 | SNF1-related protein kinase catalytic subunit alpha KIN10 | Chr07 | 947,644 | 949,731 | - | 2,088 | PF00069 | 359 | 41.435 | 11.5 | 8.647 | -0.269 |
| Gorai.007G017900 | At1g33260 | Probable receptor-like protein kinase At1g33260 | Chr07 | 1,344,601 | 1,346,859 | - | 2,259 | PF00069 | 421 | 46.799 | 7.5 | 8.155 | 0.016 |
| Gorai.007G020100 | fray2 | Serine/threonine-protein kinase fray2 | Chr07 | 1,481,037 | 1,488,778 | + | 7,742 | PF00069 | 723 | 80.301 | 8 | 7.7 | -0.485 |
| Gorai.007G025000 | CPK3 | Calcium-dependent protein kinase 3 | Chr07 | 1,749,594 | 1,753,050 | - | 3,457 | PF00069 | 530 | 60.385 | 1.5 | 6.661 | -0.51 |
| Gorai.007G029800 | CDC7-1 | Probable cell division control protein 7 homolog 1 | Chr07 | 2,049,843 | 2,054,494 | + | 4,652 | PF00069 | 917 | 103.377 | 33.5 | 9.398 | -0.505 |
| Gorai.007G035100 | CPK10 | Calcium-dependent protein kinase 10 | Chr07 | 2,415,278 | 2,419,150 | + | 3,873 | PF00069 | 550 | 62.284 | 0 | 6.526 | -0.442 |
| Gorai.007G035200 | FEI1 | LRR receptor-like serine/threonine-protein kinase FEI 1 | Chr07 | 2,427,431 | 2,431,340 | + | 3,910 | PF00069 | 601 | 66.973 | -2.5 | 6.268 | -0.064 |
| Gorai.007G038800 | At1g74360 | Probable LRR receptor-like serine/threonine-protein kinase At1g74360 | Chr07 | 2,697,746 | 2,701,528 | + | 3,783 | PF00069 | 1,099 | 120.994 | 0.5 | 6.552 | -0.045 |
| Gorai.007G050000 | MPK7 | Mitogen-activated protein kinase 7 | Chr07 | 3,517,042 | 3,520,310 | - | 3,269 | PF00069 | 368 | 42.46 | 6.5 | 7.579 | -0.258 |
| Gorai.007G051600 | LYK4 | LysM domain receptor-like kinase 4 | Chr07 | 3,636,223 | 3,640,219 | + | 3,997 | PF00069 | 790 | 87.346 | -4.5 | 5.934 | -0.033 |
| Gorai.007G051700 | LYK4 | LysM domain receptor-like kinase 4 | Chr07 | 3,641,473 | 3,643,572 | + | 2,100 | PF00069 | 630 | 69.063 | -9.5 | 5.038 | -0.089 |
| Gorai.007G051800 | CERK1 | Chitin elicitor receptor kinase 1 | Chr07 | 3,643,726 | 3,645,573 | - | 1,848 | PF00069 | 615 | 68.627 | 5 | 7.286 | 0.003 |
| Gorai.007G053000 | SRK2I | Serine/threonine-protein kinase SRK2I | Chr07 | 3,688,310 | 3,692,097 | - | 3,788 | PF00069 | 360 | 40.883 | -16.5 | 4.636 | -0.311 |
| Gorai.007G053300 | YDA | Mitogen-activated protein kinase kinase kinase YODA | Chr07 | 3,712,725 | 3,716,994 | + | 4,270 | PF00069 | 711 | 78.754 | 25.5 | 9.092 | -0.627 |
| Gorai.007G056100 | CKA1 | Casein kinase II subunit alpha-1 | Chr07 | 3,958,696 | 3,962,720 | - | 4,025 | PF00069 | 334 | 39.314 | 6 | 7.445 | -0.426 |
| Gorai.007G058300 | RBK1 | Receptor-like cytosolic serine/threonine-protein kinase RBK1 | Chr07 | 4,160,476 | 4,163,364 | + | 2,889 | PF00069 | 462 | 51.724 | -1.5 | 6.381 | -0.438 |
| Gorai.007G059900 | SAPK2 | Serine/threonine-protein kinase SAPK2 | Chr07 | 4,234,152 | 4,237,088 | + | 2,937 | PF00069 | 341 | 38.725 | -11 | 4.923 | -0.336 |
| Gorai.007G060500 | At5g10290 | Probable LRR receptor-like serine/threonine-protein kinase At5g10290 | Chr07 | 4,274,889 | 4,279,999 | + | 5,111 | PF00069 | 614 | 68.427 | -4.5 | 5.87 | -0.182 |
| Gorai.007G062800 | NA | Systemin receptor SR160 | Chr07 | 4,395,340 | 4,398,924 | - | 3,585 | PF00069 | 1,194 | 130.048 | -11.5 | 5.559 | -0.055 |
| Gorai.007G063800 | At1g49180 | Serine/threonine-protein kinase ATG1t | Chr07 | 4,465,944 | 4,469,022 | + | 3,079 | PF00069 | 316 | 36.042 | 10.5 | 8.558 | -0.287 |
| Gorai.007G071900 | CDL1 | Serine/threonine-protein kinase CDL1 | Chr07 | 5,067,365 | 5,069,493 | + | 2,129 | PF00069 | 302 | 33.377 | 14 | 9.69 | -0.351 |
| Gorai.007G073100 | RPK2 | LRR receptor-like serine/threonine-protein kinase RPK2 | Chr07 | 5,179,623 | 5,183,267 | - | 3,645 | PF00069 | 1,012 | 112.067 | 5.5 | 7.003 | 0.026 |
| Gorai.007G075400 | NA | Protein kinase PVPK-1 | Chr07 | 5,313,435 | 5,317,750 | - | 4,316 | PF00069 | 772 | 85.401 | 27 | 8.749 | -0.503 |
| Gorai.007G075600 | MKK3 | Mitogen-activated protein kinase kinase 3 | Chr07 | 5,328,475 | 5,333,697 | - | 5,223 | PF00069 | 518 | 57.653 | -6 | 5.846 | -0.21 |
| Gorai.007G076300 | fray2 | Serine/threonine-protein kinase fray2 | Chr07 | 5,390,561 | 5,398,335 | - | 7,775 | PF00069 | 681 | 75.912 | 0 | 6.516 | -0.475 |
| Gorai.007G078700 | At5g15080 | Probable receptor-like protein kinase At5g15080 | Chr07 | 5,586,474 | 5,590,586 | - | 4,113 | PF00069 | 476 | 52.764 | 16 | 9.466 | -0.514 |
| Gorai.007G080200 | KIN10 | SNF1-related protein kinase catalytic subunit alpha KIN10 | Chr07 | 5,718,666 | 5,723,480 | - | 4,815 | PF00069 | 508 | 57.873 | 14.5 | 8.729 | -0.262 |
| Gorai.007G083000 | RPK2 | LRR receptor-like serine/threonine-protein kinase RPK2 | Chr07 | 5,935,108 | 5,939,060 | + | 3,953 | PF00069 | 1,140 | 124.456 | 2.5 | 6.767 | 0.027 |
| Gorai.007G093100 | At2g45590 | Receptor-like serine/threonine-protein kinase At2g45590 | Chr07 | 6,815,725 | 6,818,950 | + | 3,226 | PF00069 | 652 | 73.407 | 20.5 | 9.252 | -0.544 |
| Gorai.007G096100 | ASK8 | Shaggy-related protein kinase theta | Chr07 | 7,076,952 | 7,083,244 | + | 6,293 | PF00069 | 470 | 53.041 | 10 | 7.739 | -0.384 |
| Gorai.007G101300 | CRCK2 | Calmodulin-binding receptor-like cytoplasmic kinase 2 | Chr07 | 7,519,240 | 7,525,152 | + | 5,913 | PF00069 | 999 | 111.278 | 32.5 | 8.75 | -0.093 |
| Gorai.007G102400 | At1g01540 | Probable serine/threonine-protein kinase At1g01540 | Chr07 | 7,620,492 | 7,623,013 | - | 2,522 | PF00069 | 478 | 53.325 | 11 | 7.799 | -0.318 |
| Gorai.007G106300 | SPA1 | Protein SUPPRESSOR OF PHYA-105 1 | Chr07 | 7,970,544 | 7,977,377 | - | 6,834 | PF00069 | 985 | 110.779 | 12.5 | 7.388 | -0.483 |
| Gorai.007G111600 | CRK3 | CDPK-related kinase 3 | Chr07 | 8,580,360 | 8,586,570 | - | 6,211 | PF00069 | 599 | 66.563 | 18 | 9.124 | -0.373 |
| Gorai.007G112100 | CIPK9 | CBL-interacting serine/threonine-protein kinase 9 | Chr07 | 8,667,597 | 8,673,097 | + | 5,501 | PF00069 | 449 | 50.967 | 10 | 8.6 | -0.408 |
| Gorai.007G114000 | ATG1A | Serine/threonine-protein kinase ATG1a | Chr07 | 8,859,610 | 8,864,875 | - | 5,266 | PF00069 | 699 | 77.049 | -1.5 | 6.357 | -0.279 |
| Gorai.007G129700 | WEE1 | Wee1-like protein kinase | Chr07 | 10,413,591 | 10,418,155 | + | 4,565 | PF00069 | 476 | 53.508 | 4.5 | 7.049 | -0.523 |
| Gorai.007G133000 | RBK2 | Receptor-like cytosolic serine/threonine-protein kinase RBK2 | Chr07 | 10,799,153 | 10,801,720 | - | 2,568 | PF00069 | 423 | 47.451 | 15.5 | 9.591 | -0.284 |
| Gorai.007G133100 | RKF3 | Probable LRR receptor-like serine/threonine-protein kinase RKF3 | Chr07 | 10,815,000 | 10,816,907 | + | 1,908 | PF00069 | 635 | 69.704 | 0.5 | 6.552 | -0.096 |
| Gorai.007G147700 | CBK1 | Serine/threonine-protein kinase CBK1 | Chr07 | 12,496,792 | 12,502,613 | + | 5,822 | PF00069 | 557 | 63.917 | -10 | 5.31 | -0.721 |
| Gorai.007G147800 | At4g26100 | Casein kinase I isoform delta-like | Chr07 | 12,504,471 | 12,510,942 | + | 6,472 | PF00069 | 458 | 51.988 | 35 | 10.328 | -0.632 |
| Gorai.007G148900 | At4g08850 | Probable LRR receptor-like serine/threonine-protein kinase At4g08850 | Chr07 | 12,622,174 | 12,626,931 | + | 4,758 | PF00069 | 1,225 | 134.232 | -27 | 4.775 | -0.043 |
| Gorai.007G153700 | At3g07070 | Serine/threonine-protein kinase At3g07070 | Chr07 | 13,135,316 | 13,137,013 | + | 1,698 | PF00069 | 429 | 47.09 | -2.5 | 6.073 | -0.528 |
| Gorai.007G157300 | MHK | Serine/threonine-protein kinase MHK | Chr07 | 13,686,453 | 13,694,988 | - | 8,536 | PF00069 | 439 | 50.426 | -10 | 5.108 | -0.278 |
| Gorai.007G167300 | WNK11 | Probable serine/threonine-protein kinase WNK11 | Chr07 | 14,878,501 | 14,881,897 | + | 3,397 | PF00069 | 298 | 33.821 | -2 | 6.108 | -0.314 |
| Gorai.007G175900 | At4g39110 | Probable receptor-like protein kinase At4g39110 | Chr07 | 16,362,145 | 16,363,354 | - | 1,210 | PF00069 | 195 | 21.753 | 8 | 8.246 | -0.055 |
| Gorai.007G176100 | FER | Receptor-like protein kinase FERONIA | Chr07 | 16,385,815 | 16,393,431 | - | 7,617 | PF00069 | 883 | 99.157 | 6 | 6.813 | -0.101 |
| Gorai.007G182500 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr07 | 17,399,830 | 17,405,494 | - | 5,665 | PF00069 | 449 | 50.574 | 24.5 | 9.9 | -0.15 |
| Gorai.007G182700 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr07 | 17,425,999 | 17,429,379 | - | 3,381 | PF00069 | 635 | 71.532 | 7.5 | 7.608 | -0.223 |
| Gorai.007G182900 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr07 | 17,443,979 | 17,448,294 | - | 4,316 | PF00069 | 776 | 84.434 | -6 | 5.686 | -0.233 |
| Gorai.007G183100 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr07 | 17,475,550 | 17,481,593 | - | 6,044 | PF00069 | 657 | 73.184 | 9.5 | 7.765 | -0.23 |
| Gorai.007G183200 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr07 | 17,490,340 | 17,494,868 | - | 4,529 | PF00069 | 588 | 65.807 | 15.5 | 8.355 | -0.231 |
| Gorai.007G183300 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr07 | 17,508,639 | 17,511,230 | - | 2,592 | PF00069 | 545 | 59.577 | 3 | 6.948 | -0.214 |
| Gorai.007G183600 | At1g18390 | Probable serine/threonine-protein kinase At1g18390 | Chr07 | 17,614,652 | 17,623,454 | + | 8,803 | PF00069 | 694 | 77.623 | 1.5 | 6.611 | -0.274 |
| Gorai.007G183900 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr07 | 17,650,992 | 17,658,254 | - | 7,263 | PF00069 | 721 | 80.745 | 11 | 7.423 | -0.129 |
| Gorai.007G184800 | At1g66830 | Probable inactive leucine-rich repeat receptor-like protein kinase At1g66830 | Chr07 | 17,733,546 | 17,735,967 | + | 2,422 | PF00069 | 691 | 76.237 | 12 | 8.343 | -0.095 |
| Gorai.007G186000 | RKL1 | Probable inactive receptor kinase At1g48480 | Chr07 | 17,822,828 | 17,825,924 | + | 3,097 | PF00069 | 611 | 66.416 | 12.5 | 8.898 | -0.063 |
| Gorai.007G186300 | NIK1 | Protein NSP-INTERACTING KINASE 1 | Chr07 | 17,848,150 | 17,852,093 | - | 3,944 | PF00069 | 625 | 69.219 | 8 | 7.421 | -0.145 |
| Gorai.007G187900 | TMK1 | Receptor protein kinase TMK1 | Chr07 | 18,089,853 | 18,093,554 | - | 3,702 | PF00069 | 953 | 103.812 | -2.5 | 6.306 | -0.142 |
| Gorai.007G194500 | CPK28 | Calcium-dependent protein kinase 28 | Chr07 | 19,220,289 | 19,225,229 | - | 4,941 | PF00069 | 554 | 62.789 | 18.5 | 9.481 | -0.549 |
| Gorai.007G196700 | At4g36180 | Probable LRR receptor-like serine/threonine-protein kinase At4g36180 | Chr07 | 19,709,672 | 19,714,278 | - | 4,607 | PF00069 | 1,128 | 121.933 | -11.5 | 5.388 | 0.079 |
| Gorai.007G210100 | SRK2I | Serine/threonine-protein kinase SRK2I | Chr07 | 22,477,643 | 22,482,034 | - | 4,392 | PF00069 | 361 | 40.879 | -15.5 | 4.715 | -0.247 |
| Gorai.007G210700 | CRK5 | CDPK-related kinase 5 | Chr07 | 22,680,299 | 22,685,337 | + | 5,039 | PF00069 | 626 | 69.779 | 18.5 | 9.005 | -0.402 |
| Gorai.007G213900 | YDA | Mitogen-activated protein kinase kinase kinase YODA | Chr07 | 23,451,650 | 23,453,490 | + | 1,841 | PF00069 | 359 | 39.853 | -4 | 5.331 | -0.362 |
| Gorai.007G214500 | At1g01540 | Probable serine/threonine-protein kinase At1g01540 | Chr07 | 23,500,036 | 23,504,755 | - | 4,720 | PF00069 | 492 | 54.583 | 6.5 | 7.286 | -0.372 |
| Gorai.007G216500 | At5g67200 | Probable inactive receptor kinase At5g67200 | Chr07 | 24,445,150 | 24,448,225 | - | 3,076 | PF00069 | 663 | 72.974 | 23 | 9.576 | -0.043 |
| Gorai.007G222200 | At2g23070 | Casein kinase II subunit alpha, chloroplastic | Chr07 | 26,173,802 | 26,179,438 | + | 5,637 | PF00069 | 428 | 50.158 | 22.5 | 9.403 | -0.543 |
| Gorai.007G228700 | BAM1 | Leucine-rich repeat receptor-like serine/threonine-protein kinase BAM1 | Chr07 | 27,933,772 | 27,937,555 | - | 3,784 | PF00069 | 866 | 94.692 | 1.5 | 6.626 | -0.131 |
| Gorai.007G231000 | LECRK91 | L-type lectin-domain containing receptor kinase IX.1 | Chr07 | 28,955,320 | 28,957,284 | + | 1,965 | PF00069 | 654 | 72.616 | -0.5 | 6.459 | -0.117 |
| Gorai.007G231100 | LECRK91 | L-type lectin-domain containing receptor kinase IX.1 | Chr07 | 28,985,811 | 28,987,760 | + | 1,950 | PF00069 | 649 | 72.057 | 0.5 | 6.58 | -0.149 |
| Gorai.007G231200 | LECRK91 | L-type lectin-domain containing receptor kinase IX.1 | Chr07 | 28,990,583 | 28,992,597 | + | 2,015 | PF00069 | 650 | 72.246 | -2 | 6.255 | -0.164 |
| Gorai.007G231300 | LECRK91 | L-type lectin-domain containing receptor kinase IX.1 | Chr07 | 28,994,813 | 28,996,759 | + | 1,947 | PF00069 | 648 | 72.749 | 6 | 7.159 | -0.142 |
| Gorai.007G231400 | LECRK91 | L-type lectin-domain containing receptor kinase IX.1 | Chr07 | 29,066,806 | 29,069,736 | + | 2,931 | PF00069 | 626 | 69.533 | -2 | 6.311 | -0.118 |
| Gorai.007G231500 | LECRK91 | L-type lectin-domain containing receptor kinase IX.1 | Chr07 | 29,091,705 | 29,093,675 | + | 1,971 | PF00069 | 656 | 74.208 | 6.5 | 7.257 | -0.195 |
| Gorai.007G234800 | SAPK2 | Serine/threonine-protein kinase SAPK2 | Chr07 | 30,718,958 | 30,721,333 | - | 2,376 | PF00069 | 341 | 38.682 | -6.5 | 5.467 | -0.369 |
| Gorai.007G236500 | At5g10290 | Probable LRR receptor-like serine/threonine-protein kinase At5g10290 | Chr07 | 31,912,568 | 31,920,789 | + | 8,222 | PF00069 | 605 | 67.547 | 0 | 6.519 | -0.106 |
| Gorai.007G238000 | WAKL22 | Wall-associated receptor kinase-like 22 | Chr07 | 32,411,935 | 32,415,159 | + | 3,225 | PF00069 | 730 | 81.586 | -0.5 | 6.453 | -0.16 |
| Gorai.007G244000 | At5g10020 | Probable inactive receptor kinase At5g10020 | Chr07 | 36,234,139 | 36,240,974 | + | 6,836 | PF00069 | 1,060 | 115.443 | 2 | 6.652 | -0.075 |
| Gorai.007G247600 | ppk15 | Serine/threonine-protein kinase ppk15 | Chr07 | 38,401,226 | 38,413,535 | - | 12,310 | PF00069 | 969 | 106.907 | 21.5 | 8.511 | -0.516 |
| Gorai.007G248700 | LYK5 | Protein LYK5 | Chr07 | 38,852,031 | 38,854,043 | + | 2,013 | PF00069 | 670 | 73.694 | -2 | 6.203 | -0.147 |
| Gorai.007G267100 | WAKL20 | Wall-associated receptor kinase-like 20 | Chr07 | 44,637,289 | 44,639,245 | - | 1,957 | PF00069 | 636 | 71.044 | 21.5 | 8.55 | -0.14 |
| Gorai.007G271300 | At5g63930 | Probable leucine-rich repeat receptor-like protein kinase At5g63930 | Chr07 | 45,632,483 | 45,636,923 | - | 4,441 | PF00069 | 1,105 | 120.791 | 0.5 | 6.553 | 0.027 |
| Gorai.007G273700 | PXL1 | Leucine-rich repeat receptor-like protein kinase PXL1 | Chr07 | 46,688,065 | 46,691,302 | + | 3,238 | PF00069 | 1,011 | 110.816 | 1.5 | 6.652 | 0.044 |
| Gorai.007G275800 | At4g26100 | Casein kinase I isoform delta-like | Chr07 | 47,080,026 | 47,086,069 | - | 6,044 | PF00069 | 464 | 52.52 | 36.5 | 10.382 | -0.712 |
| Gorai.007G276600 | PPCK1 | Phosphoenolpyruvate carboxylase kinase 1 | Chr07 | 47,308,354 | 47,309,996 | + | 1,643 | PF00069 | 275 | 31.163 | -4.5 | 5.207 | -0.117 |
| Gorai.007G283900 | NEK2 | Serine/threonine-protein kinase Nek2 | Chr07 | 48,627,870 | 48,634,112 | + | 6,243 | PF00069 | 620 | 69.771 | 28.5 | 9.677 | -0.508 |
| Gorai.007G285300 | WNK1 | Serine/threonine-protein kinase WNK1 | Chr07 | 48,893,102 | 48,896,688 | + | 3,587 | PF00069 | 727 | 83.617 | -14.5 | 5.511 | -0.666 |
| Gorai.007G287200 | At1g54610 | Probable serine/threonine-protein kinase At1g54610 | Chr07 | 49,385,309 | 49,390,143 | + | 4,835 | PF00069 | 582 | 64.632 | 28 | 9.933 | -0.6 |
| Gorai.007G289500 | kin-19 | Casein kinase I isoform alpha | Chr07 | 49,581,413 | 49,587,559 | + | 6,147 | PF00069 | 706 | 78.772 | 21.5 | 9.137 | -0.375 |
| Gorai.007G292000 | RKF3 | Probable LRR receptor-like serine/threonine-protein kinase RKF3 | Chr07 | 50,040,462 | 50,042,503 | + | 2,042 | PF00069 | 605 | 67.23 | 2.5 | 6.738 | -0.044 |
| Gorai.007G292100 | RKF3 | Probable LRR receptor-like serine/threonine-protein kinase RKF3 | Chr07 | 50,053,047 | 50,054,849 | + | 1,803 | PF00069 | 600 | 66.467 | 9 | 7.785 | -0.03 |
| Gorai.007G295100 | CDL1 | Serine/threonine-protein kinase CDL1 | Chr07 | 50,572,689 | 50,575,493 | - | 2,805 | PF00069 | 447 | 49.927 | 23.5 | 9.651 | -0.187 |
| Gorai.007G296700 | ANP1 | Mitogen-activated protein kinase kinase kinase ANP1 | Chr07 | 50,709,058 | 50,713,892 | + | 4,835 | PF00069 | 646 | 70.96 | -5 | 5.856 | -0.552 |
| Gorai.007G308500 | ASK1 | Shaggy-related protein kinase alpha | Chr07 | 52,192,786 | 52,197,103 | - | 4,318 | PF00069 | 407 | 46.204 | 13 | 8.46 | -0.266 |
| Gorai.007G308900 | At2g42960 | Probable receptor-like protein kinase At2g42960 | Chr07 | 52,240,014 | 52,243,620 | - | 3,607 | PF00069 | 510 | 56.983 | 14 | 9.08 | -0.421 |
| Gorai.007G312800 | RLK1 | G-type lectin S-receptor-like serine/threonine-protein kinase RLK1 | Chr07 | 52,669,080 | 52,670,716 | - | 1,637 | PF00069 | 489 | 55.462 | -7 | 5.516 | -0.176 |
| Gorai.007G313000 | RLK1 | G-type lectin S-receptor-like serine/threonine-protein kinase RLK1 | Chr07 | 52,681,970 | 52,682,872 | - | 903 | PF00069 | 300 | 34.012 | 0 | 6.511 | -0.095 |
| Gorai.007G313100 | RLK1 | G-type lectin S-receptor-like serine/threonine-protein kinase RLK1 | Chr07 | 52,685,744 | 52,688,218 | - | 2,475 | PF00069 | 824 | 92.878 | -5.5 | 5.762 | -0.258 |
| Gorai.007G313200 | RLK1 | G-type lectin S-receptor-like serine/threonine-protein kinase RLK1 | Chr07 | 52,692,434 | 52,695,471 | - | 3,038 | PF00069 | 691 | 77.137 | -3 | 6.05 | -0.208 |
| Gorai.007G313500 | PBS1 | Serine/threonine-protein kinase PBS1 | Chr07 | 52,718,892 | 52,720,771 | + | 1,880 | PF00069 | 377 | 42.497 | 9.5 | 8.444 | -0.253 |
| Gorai.007G322800 | At1g09600 | Probable serine/threonine-protein kinase At1g09600 | Chr07 | 54,075,982 | 54,081,941 | + | 5,960 | PF00069 | 700 | 78.064 | 26 | 9.233 | -0.644 |
| Gorai.007G322900 | SPA3 | Protein SPA1-RELATED 3 | Chr07 | 54,084,668 | 54,089,631 | + | 4,964 | PF00069 | 924 | 104.157 | -14 | 5.204 | -0.414 |
| Gorai.007G326000 | LRR-RLK | Probable leucine-rich repeat receptor-like serine/threonine-protein kinase At3g14840 | Chr07 | 54,556,486 | 54,560,723 | - | 4,238 | PF00069 | 386 | 43.267 | 4 | 7.261 | -0.284 |
| Gorai.007G329800 | At1g07650 | Probable LRR receptor-like serine/threonine-protein kinase At1g07650 | Chr07 | 55,199,441 | 55,203,920 | + | 4,480 | PF00069 | 581 | 64.588 | -5.5 | 5.786 | -0.166 |
| Gorai.007G330000 | LRR-RLK | Probable leucine-rich repeat receptor-like serine/threonine-protein kinase At3g14840 | Chr07 | 55,217,881 | 55,224,223 | + | 6,343 | PF00069 | 778 | 86.376 | -0.5 | 6.459 | -0.142 |
| Gorai.007G330100 | LECRK91 | L-type lectin-domain containing receptor kinase IX.1 | Chr07 | 55,227,072 | 55,230,191 | + | 3,120 | PF00069 | 310 | 34.666 | 10.5 | 8.628 | -0.202 |
| Gorai.007G332300 | MPK19 | Mitogen-activated protein kinase 19 | Chr07 | 55,489,254 | 55,494,495 | - | 5,242 | PF00069 | 598 | 68.183 | 26 | 9.718 | -0.522 |
| Gorai.007G334900 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr07 | 55,923,662 | 55,926,962 | + | 3,301 | PF00069 | 661 | 74.655 | 1.5 | 6.689 | -0.15 |
| Gorai.007G335000 | At5g39020 | Probable receptor-like protein kinase At5g39020 | Chr07 | 55,931,100 | 55,934,372 | + | 3,273 | PF00069 | 661 | 74.878 | 7.5 | 7.473 | -0.157 |
| Gorai.007G335100 | At1g67000 | Probable receptor-like protein kinase At1g67000 | Chr07 | 55,952,983 | 55,956,179 | + | 3,197 | PF00069 | 685 | 78.154 | 6.5 | 7.444 | -0.17 |
| Gorai.007G343100 | RBK2 | Receptor-like cytosolic serine/threonine-protein kinase RBK2 | Chr07 | 56,844,409 | 56,849,234 | + | 4,826 | PF00069 | 485 | 54.527 | 11 | 8.117 | -0.488 |
| Gorai.007G343500 | kin-19 | Casein kinase I isoform alpha | Chr07 | 56,865,170 | 56,871,587 | - | 6,418 | PF00069 | 739 | 82.599 | 25.5 | 9.345 | -0.3 |
| Gorai.007G346700 | LECRK59 | L-type lectin-domain containing receptor kinase V.9 | Chr07 | 57,658,634 | 57,660,591 | - | 1,958 | PF00069 | 634 | 70.327 | 4.5 | 7.059 | -0.064 |
| Gorai.007G365200 | YDA | Mitogen-activated protein kinase kinase kinase YODA | Chr07 | 59,740,423 | 59,741,033 | + | 611 | PF00069 | 192 | 22.102 | -3.5 | 5.104 | -0.282 |
| Gorai.007G370900 | KIPK | Serine/threonine-protein kinase KIPK | Chr07 | 60,372,052 | 60,376,462 | + | 4,411 | PF00069 | 842 | 92.143 | 39.5 | 9.824 | -0.462 |
| Gorai.007G376900 | LECRKS4 | L-type lectin-domain containing receptor kinase S.4 | Chr07 | 60,799,768 | 60,801,458 | - | 1,691 | PF00069 | 538 | 59.96 | 8 | 7.587 | -0.192 |