# Supplemental Appendix 1. For the “merged” taro genome assembly, a list of contigs and start and end positions of motifs characteristic of plant disease resistance genes belonging to the nucleotide-binding site leucine-rich repeat gene family. The motifs are based on Jupe et al. 2012 (see manuscript text for details).

| Contig ID (merged genome) | NLR\_ID | NLR\_type | Start | End | Strand | Motif based on Jupe et al. 2012 |
| --- | --- | --- | --- | --- | --- | --- |
| 292690 | 292690\_nlr\_1 | complete | 33186 | 35733 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,9,11 |
| tig00194543 | tig00194543\_nlr\_1 | partial (pseudogene) | 17827 | 18516 | + | 4,5,10,3,2,7 |
| 160796 | 160796\_nlr\_1 | partial (pseudogene) | 152 | 1757 | + | 1,4,5,10,3,2,8 |
| tig00196700 | tig00196700\_nlr\_1 | complete | 887052 | 890683 | - | 1,4,10,3,2,8,7,11,11,11,11,11,11 |
| 283998 | 283998\_nlr\_1 | partial (pseudogene) | 3622 | 4894 | - | 17,1,4,5,3 |
| 294834 | 294834\_nlr\_1 | partial | 8218 | 8941 | + | 4,5,10,3,12,2,7 |
| 292651 | 292651\_nlr\_1 | complete | 9747 | 13086 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11 |
| tig00000473 | tig00000473\_nlr\_1 | complete (pseudogene) | 4461 | 7941 | + | 16,1,6,4,5,3,12,2,8,7,9,9,11,11,11,11 |
| tig00000473 | tig00000473\_nlr\_2 | complete (pseudogene) | 15315 | 18731 | + | 16,1,6,4,5,3,12,2,8,7,9,11,11,11,11,11,11 |
| 283968 | 283968\_nlr\_1 | complete | 122904 | 126309 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11 |
| 283968 | 283968\_nlr\_2 | complete | 105862 | 109264 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11,11 |
| 229299 | 229299\_nlr\_1 | partial | 330 | 1833 | - | 3,12,2,8,7,9,19,11,11,11 |
| 178 | 178\_nlr\_1 | partial | 218364 | 219288 | + | 1,6,4,5,10,3,12,7 |
| 178 | 178\_nlr\_2 | partial | 59486 | 60338 | - | 6,4,5,10,3,7 |
| 178 | 178\_nlr\_3 | complete | 11562 | 13560 | - | 1,4,5,10,3,12,8,7,11,9,9,11,11,11 |
| tig00001530 | tig00001530\_nlr\_1 | partial (pseudogene) | 50387 | 50647 | - | 2,8,7 |
| 282851 | 282851\_nlr\_1 | complete | 21559 | 26452 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11 |
| tig00058117 | tig00058117\_nlr\_1 | complete (pseudogene) | 1604 | 4352 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,9,9,9,19,11,11,11,11 |
| tig00199380 | tig00199380\_nlr\_1 | complete (pseudogene) | 57034 | 61455 | + | 17,16,1,6,4,10,12,2,8,7,9,9,11,11,11,11,11 |
| tig00199380 | tig00199380\_nlr\_2 | complete (pseudogene) | 82813 | 85814 | + | 17,16,1,4,5,2,8,7,9,9,11,11 |
| 262610 | 262610\_nlr\_1 | complete | 35 | 2573 | - | 16,1,6,4,5,10,3,12,2,8,7,11,11,11,11,11,11 |
| tig00040873 | tig00040873\_nlr\_1 | partial (pseudogene) | 69 | 1197 | - | 17,1,6,4,10,3 |
| tig00011980 | tig00011980\_nlr\_1 | partial (pseudogene) | 633549 | 635876 | - | 5,10,3,12,2,19,11,11,11,11,19,11,11,11 |
| 227064 | 227064\_nlr\_1 | complete | 2887 | 5089 | + | 1,6,4,10,3,2,9,9,11,11,11,11 |
| tig00069635 | tig00069635\_nlr\_1 | complete (pseudogene) | 20564 | 24324 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,19,11,11,9,19,11,11,11,11,11 |
| 247264 | 247264\_nlr\_1 | complete | 2280 | 5520 | + | 1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,9,11,11,11,11,11,11,11,11 |
| tig00089825 | tig00089825\_nlr\_1 | partial (pseudogene) | 13653 | 14444 | - | 3,12,2,8,7,9 |
| 144237 | 144237\_nlr\_1 | partial (pseudogene) | 1302 | 2057 | - | 4,5,10,2,7 |
| tig00047898 | tig00047898\_nlr\_1 | complete (pseudogene) | 29377 | 33612 | + | 17,16,1,6,4,5,3,12,2,8,7,9,9,19,11,9,11,11,11,11,11 |
| 285491 | 285491\_nlr\_1 | complete | 52068 | 54268 | - | 1,6,4,5,10,2,9,9,11,11,9,11,11,11 |
| 2455 | 2455\_nlr\_1 | partial (pseudogene) | 2171 | 3671 | + | 10,3,2,8,7,9,9,11,11 |
| tig00028748 | tig00028748\_nlr\_1 | complete (pseudogene) | 311310 | 313998 | + | 16,1,6,4,5,3,12,2,8,7,11,9,9,11,19,11,11,9 |
| tig00028748 | tig00028748\_nlr\_2 | complete | 258201 | 260979 | - | 17,16,1,6,4,5,3,12,2,8,7,9,9,19,11,11,11,11 |
| 1365 | 1365\_nlr\_1 | partial (pseudogene) | 641326 | 641979 | - | 10,3,12 |
| tig00053277 | tig00053277\_nlr\_1 | complete | 23327 | 25957 | + | 16,1,4,5,3,12,2,8,7,9,9,9,9,9,9,11,11,11 |
| 1354 | 1354\_nlr\_1 | partial (pseudogene) | 129141 | 129889 | - | 4,5,10 |
| tig00035201 | tig00035201\_nlr\_1 | complete | 33104 | 35635 | - | 17,16,1,6,4,5,10,3,12,2,8,11 |
| tig00035201 | tig00035201\_nlr\_2 | complete (pseudogene) | 1343 | 3768 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,11 |
| 2419 | 2419\_nlr\_1 | partial (pseudogene) | 103662 | 104336 | - | 12,2,8 |
| 736 | 736\_nlr\_1 | complete | 128949 | 131730 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11 |
| 246792 | 246792\_nlr\_1 | complete | 4996 | 7135 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11 |
| tig00200463 | tig00200463\_nlr\_1 | complete (pseudogene) | 8435 | 11775 | + | 16,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,9,11,11,11,11 |
| tig00200463 | tig00200463\_nlr\_2 | complete (pseudogene) | 27257 | 30014 | + | 16,1,6,4,5,10,3,12,2,8,7,11,11,11,11,11,11,9,11,11,11 |
| tig00200462 | tig00200462\_nlr\_1 | complete (pseudogene) | 11707 | 15040 | + | 16,1,6,4,5,10,3,12,2,8,7,11,11,11,11,11,9,11,11,11,11,11 |
| tig00204813 | tig00204813\_nlr\_1 | complete (pseudogene) | 18814 | 22815 | - | 16,1,6,4,5,10,12,2,8,7,9,9,19,11,11,11,11,11,9,11,11 |
| tig00204813 | tig00204813\_nlr\_2 | complete (pseudogene) | 696 | 5542 | - | 16,1,6,4,10,3,12,2,8,7,19,11,11,19,11,11,11,11,11,11,11 |
| tig00204812 | tig00204812\_nlr\_1 | complete (pseudogene) | 34794 | 40060 | - | 1,6,4,3,12,2,8,7,11,19,11,11,11,11,11,11,9,11,9,11 |
| tig00204812 | tig00204812\_nlr\_2 | complete (pseudogene) | 22369 | 29384 | - | 16,1,6,4,5,10,3,12,2,8,9,11,19,11,11,11,11,11,11,11,19,19,11,11,11 |
| tig00204812 | tig00204812\_nlr\_3 | complete (pseudogene) | 8130 | 13140 | - | 16,1,6,4,10,3,12,2,8,7,9,19,19,11,11,11,11,11,11,11,11,11 |
| tig00046736 | tig00046736\_nlr\_1 | complete (pseudogene) | 12575 | 16833 | + | 16,1,6,4,5,10,12,2,8,7,9,9,19,11,11,11,11,9,19,11,11,11 |
| tig00046736 | tig00046736\_nlr\_2 | complete | 22290 | 25181 | - | 16,1,4,5,10,2,9,9,11,19,11,11 |
| tig00199904 | tig00199904\_nlr\_1 | complete | 17147 | 19749 | + | 16,1,6,4,5,3,12,2,8,7,9,9,11,11,11,11,11 |
| tig00199904 | tig00199904\_nlr\_2 | complete (pseudogene) | 48513 | 51947 | + | 16,1,6,4,5,3,12,2,8,7,11,11,11,11,11,11,11,11,11 |
| 275640 | 275640\_nlr\_1 | complete | 4043 | 6176 | - | 1,6,4,5,10,3,12,2,7,11,9,9,11,11,11,11,11 |
| 281025 | 281025\_nlr\_1 | complete | 1497 | 4899 | + | 1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11,11 |
| 253218 | 253218\_nlr\_1 | complete | 6385 | 9577 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11 |
| 275605 | 275605\_nlr\_1 | complete (pseudogene) | 15 | 1470 | - | 1,4,5,10,2,7,9,9,11 |
| tig00029175 | tig00029175\_nlr\_1 | complete | 1923 | 4056 | - | 1,6,4,5,10,3,2,7,11,9,9,9,11,11,11,11 |
| tig00003633 | tig00003633\_nlr\_1 | complete | 901812 | 904470 | - | 17,1,4,5,10,3,12,2,7,11,9,9,11,11,11,11,11 |
| 233654 | 233654\_nlr\_1 | partial | 20716 | 21001 | + | 1,6,4 |
| 138121 | 138121\_nlr\_1 | complete | 40 | 1717 | + | 1,6,4,5,10,3,12,2,7,9,9,11,11 |
| tig00199280 | tig00199280\_nlr\_1 | partial | 187631 | 188327 | + | 12,2,8,7,9,9,11 |
| tig00078229 | tig00078229\_nlr\_1 | partial | 747519 | 750027 | + | 13,6,4,5,10,3,12,2,7,9,9,11,11,11,11 |
| 248299 | 248299\_nlr\_1 | partial | 12 | 1269 | - | 16,1,6,4,5,10,3,12,2,8 |
| tig00203050 | tig00203050\_nlr\_1 | complete (pseudogene) | 6682 | 11887 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig00203050 | tig00203050\_nlr\_2 | complete (pseudogene) | 16087 | 20279 | + | 16,1,6,4,5,10,3,12,2,19,19,19,11,11,11,11,11,11 |
| tig00203050 | tig00203050\_nlr\_3 | complete (pseudogene) | 34766 | 38812 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,11 |
| tig00203050 | tig00203050\_nlr\_4 | partial (pseudogene) | 43153 | 43952 | + | 16,1,6,4 |
| tig00011879 | tig00011879\_nlr\_1 | complete | 898801 | 903400 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11 |
| tig00070734 | tig00070734\_nlr\_1 | complete | 25295 | 29106 | - | 17,16,1,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig00070734 | tig00070734\_nlr\_2 | complete | 3916 | 8516 | - | 17,16,1,6,4,5,10,3,2,8,7,9,9,11,11,11,11,11 |
| tig00198169 | tig00198169\_nlr\_1 | complete (pseudogene) | 68929 | 71973 | - | 17,1,4,5,10,2,7,9,11 |
| tig00198169 | tig00198169\_nlr\_2 | complete (pseudogene) | 50096 | 54212 | - | 17,16,1,6,4,5,3,12,2,7,9,11,11,11,11,11,11,11,11,11,11,11 |
| tig00198169 | tig00198169\_nlr\_3 | complete (pseudogene) | 39589 | 43033 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11 |
| 198734 | 198734\_nlr\_1 | partial (pseudogene) | 14682 | 23328 | - | 10,3,12,2,8,7,9,11,19 |
| tig01552590 | tig01552590\_nlr\_1 | complete | 15021 | 17698 | + | 16,1,6,5,10,3,2,8,7,9,9,11,11,11,11,11 |
| tig00203002 | tig00203002\_nlr\_1 | complete (pseudogene) | 18890 | 23421 | + | 17,16,1,4,3,12,2,7,9,9,9,11,11,11,11,11,11,11,11,11,11,11 |
| tig00203002 | tig00203002\_nlr\_2 | complete (pseudogene) | 33899 | 39374 | + | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig00029772 | tig00029772\_nlr\_1 | complete (pseudogene) | 41495 | 43354 | - | 17,16,1,6,4,5,3,12,2,8,7,9,11 |
| 3474 | 3474\_nlr\_1 | complete (pseudogene) | 12479 | 14030 | + | 16,1,6,4,5,7,9 |
| 276021 | 276021\_nlr\_1 | complete | 30030 | 32577 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,9,11 |
| 2366 | 2366\_nlr\_1 | complete | 327292 | 329605 | + | 1,6,4,5,3,12,2,7,9,11,11,19,11,11,11 |
| 279997 | 279997\_nlr\_1 | complete | 6248 | 11305 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig00052089 | tig00052089\_nlr\_1 | complete | 12272 | 14378 | + | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11 |
| tig00004043 | tig00004043\_nlr\_1 | complete (pseudogene) | 19059 | 24083 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11 |
| tig00004043 | tig00004043\_nlr\_2 | complete (pseudogene) | 42970 | 48739 | + | 16,1,6,4,10,3,12,2,8,7,9,9,9,19,11,11,11,11,11,11 |
| tig00004043 | tig00004043\_nlr\_3 | complete | 51949 | 54526 | + | 16,1,6,4,5,10,3,12,2,7,9,9,11,19,11,11,11 |
| tig00004043 | tig00004043\_nlr\_4 | complete (pseudogene) | 66185 | 70390 | + | 16,1,6,4,5,10,12,2,8,7,9,11,19,11,11,11,11,11,19,11,11 |
| tig00004043 | tig00004043\_nlr\_5 | complete (pseudogene) | 74847 | 79417 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,11,11 |
| tig00004043 | tig00004043\_nlr\_6 | complete (pseudogene) | 84944 | 89606 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,11,19,11,11,11 |
| tig00004043 | tig00004043\_nlr\_7 | complete | 105090 | 107965 | - | 16,1,6,4,5,10,3,2,8,9,9,11,19,11,11,11 |
| tig00026446 | tig00026446\_nlr\_1 | complete | 132023 | 134225 | + | 1,6,4,5,10,3,12,2,7,9,9,11,11,11 |
| 647 | 647\_nlr\_1 | complete | 166858 | 169546 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,9,9,9,9,11,11,11 |
| tig00206909 | tig00206909\_nlr\_1 | complete (pseudogene) | 7381 | 11433 | + | 16,1,6,4,5,10,3,12,2,8,7,9,11,19,19,11,11,11,11,11,11,11,11,9,11,11 |
| tig01551415 | tig01551415\_nlr\_1 | complete (pseudogene) | 35068 | 39072 | + | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11,19,11,11,11 |
| tig01551415 | tig01551415\_nlr\_2 | complete (pseudogene) | 342393 | 346025 | + | 16,1,4,5,10,3,12,2,8,7,9,9,9,9,9,19,9,11,11,11,9 |
| tig01551415 | tig01551415\_nlr\_3 | complete | 294128 | 298217 | - | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,19,11,11,11 |
| 619 | 619\_nlr\_1 | complete | 40975 | 43445 | - | 17,1,6,4,3,12,2,8,7,11,11,11,9,11 |
| 619 | 619\_nlr\_2 | complete (pseudogene) | 4787 | 6718 | - | 1,6,4,5,10,3,12,2,8,7,19,9,11,11,11,11 |
| 236217 | 236217\_nlr\_1 | partial | 1190 | 2839 | + | 16,1,6,4,5,10,3,12,2 |
| 253179 | 253179\_nlr\_1 | complete | 15057 | 17187 | + | 1,6,4,5,3,12,2,7,9,9,11,11,11,11 |
| 161015 | 161015\_nlr\_1 | complete (pseudogene) | 81 | 2874 | + | 16,1,4,5,10,3,12,2,8,7,9,9,9,11 |
| 601 | 601\_nlr\_1 | complete | 244034 | 251000 | + | 1,6,4,5,10,3,2,7,9,11,11,11,11,11,11,9,19 |
| tig00012288 | tig00012288\_nlr\_1 | complete | 852845 | 856656 | - | 16,1,6,4,10,3,2,7,9,11,9,11,9,11,9,11,11,19,11,11,11,11,11 |
| tig00012288 | tig00012288\_nlr\_2 | complete | 789399 | 793314 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,11,11,19,11,9,11,11,11,11,11,11,11,11,11,11,11 |
| tig00012288 | tig00012288\_nlr\_3 | complete | 647610 | 650514 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11 |
| tig00012288 | tig00012288\_nlr\_4 | complete | 613600 | 617215 | - | 17,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11 |
| tig00012288 | tig00012288\_nlr\_5 | complete | 377258 | 381086 | - | 16,1,6,4,5,10,3,12,2,7,9,11,9,11,9,11,9,11,11,19,11,11,11,11,11 |
| tig00012288 | tig00012288\_nlr\_6 | complete | 313812 | 317727 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,11,11,19,11,9,11,11,11,11,11,11,11,11,11,11,11 |
| tig00012288 | tig00012288\_nlr\_7 | complete | 172023 | 174927 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11 |
| tig00012288 | tig00012288\_nlr\_8 | complete | 138013 | 141628 | - | 17,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11 |
| 2990 | 2990\_nlr\_1 | complete | 133094 | 135572 | + | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,19,11,11,11 |
| tig00070057 | tig00070057\_nlr\_1 | complete (pseudogene) | 11562 | 14325 | + | 1,6,4,5,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig00195455 | tig00195455\_nlr\_1 | complete | 75688 | 77539 | + | 17,16,1,6,4,5,3,2,7,9,9 |
| tig00195455 | tig00195455\_nlr\_2 | complete | 82062 | 86957 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11 |
| tig00195455 | tig00195455\_nlr\_3 | complete (pseudogene) | 131090 | 132974 | + | 17,16,1,6,4,5,10,12,2,8,7,9,9 |
| 228609 | 228609\_nlr\_1 | partial (pseudogene) | 5 | 982 | - | 4,5,10,3,2,9 |
| tig00014448 | tig00014448\_nlr\_1 | complete (pseudogene) | 21371 | 25121 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11 |
| 294665 | 294665\_nlr\_1 | complete (pseudogene) | 51013 | 53488 | - | 17,16,1,6,4,5,10,3,12,2,8,7,19,9,11,11,11,11 |
| tig00116318 | tig00116318\_nlr\_1 | complete | 11078 | 13577 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,9,11,11,11 |
| tig00116318 | tig00116318\_nlr\_2 | complete | 2819 | 5493 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,9,11,11,11 |
| 1847 | 1847\_nlr\_1 | partial (pseudogene) | 42852 | 44496 | - | 16,1,6,4,5,10,3,12,2,20 |
| 233583 | 233583\_nlr\_1 | partial | 152 | 1550 | - | 17,16,1,6,4,5,10,3,12,2,8 |
| tig00000285 | tig00000285\_nlr\_1 | complete | 63450 | 66739 | + | 17,16,1,4,3,12,2,8,7,9,9,11,11,11,11 |
| 291353 | 291353\_nlr\_1 | complete | 166981 | 168721 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,11 |
| 225994 | 225994\_nlr\_1 | complete | 222 | 2766 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,9,11 |
| 1822 | 1822\_nlr\_1 | complete | 27405 | 30441 | + | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11 |
| 1822 | 1822\_nlr\_2 | complete (pseudogene) | 47916 | 60957 | + | 17,1,4,5,10,3,12,2,8,7,9,9,11,9,11,11,11,11,11,11,11,11,11,11 |
| tig00084803 | tig00084803\_nlr\_1 | complete (pseudogene) | 5540 | 7284 | - | 1,5,10,3,12,2,8,9,9,11,20 |
| tig00060229 | tig00060229\_nlr\_1 | complete | 10931 | 12856 | + | 1,6,4,5,10,3,12,2,8,7,9,11,11,11,11 |
| 284853 | 284853\_nlr\_1 | complete | 169919 | 173597 | - | 1,6,4,5,10,3,2,7,9,9,11,11,11,11,11,19 |
| 232469 | 232469\_nlr\_1 | partial | 15824 | 16784 | + | 1,6,4,5,10,3,12,2,7 |
| tig00102166 | tig00102166\_nlr\_1 | complete (pseudogene) | 3398 | 7440 | - | 16,1,6,4,5,10,3,12,8,7,9,11,19,11,11,11,11,9,11,11 |
| tig00000231 | tig00000231\_nlr\_1 | partial | 776035 | 777256 | - | 16,1,6,4,3,12,2 |
| tig00194971 | tig00194971\_nlr\_1 | complete (pseudogene) | 11181 | 14875 | + | 16,1,6,4,5,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11,11 |
| tig00194971 | tig00194971\_nlr\_2 | complete (pseudogene) | 37367 | 40272 | + | 16,1,6,4,5,12,2,8,7,9,9,9,11,11,11,11 |
| 280464 | 280464\_nlr\_1 | complete | 73310 | 76337 | + | 16,1,6,5,10,3,2,8,9,9,11,19,11,11,11,11 |
| 280464 | 280464\_nlr\_2 | complete (pseudogene) | 80840 | 84913 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,19,11,11,11,11,11,11,11,11,11,11 |
| 290217 | 290217\_nlr\_1 | partial (pseudogene) | 1027 | 1990 | - | 17,16,1,6,4,5 |
| 278134 | 278134\_nlr\_1 | partial | 40740 | 44359 | - | 10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11 |
| 278134 | 278134\_nlr\_2 | complete | 41 | 5867 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,19 |
| 3397 | 3397\_nlr\_1 | complete | 67718 | 71258 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,9,11,11,11,11,11,11,11 |
| 3397 | 3397\_nlr\_2 | complete (pseudogene) | 9216 | 13099 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,9,11,11,11,11,11,11,11,11 |
| 3397 | 3397\_nlr\_3 | complete | 6 | 1616 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11 |
| 290860 | 290860\_nlr\_1 | complete (pseudogene) | 1613 | 4964 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,19,19,11,11,11,11,11,11,11,11 |
| tig00008344 | tig00008344\_nlr\_1 | complete | 149298 | 153502 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,11,11,19,11,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig00008344 | tig00008344\_nlr\_2 | complete | 241352 | 244757 | + | 16,1,4,5,3,12,2,8,7,9,9,11,11,11,9,11,11 |
| tig00008344 | tig00008344\_nlr\_3 | complete | 178873 | 182242 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11,11 |
| tig00008344 | tig00008344\_nlr\_4 | complete | 170281 | 173815 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11,11 |
| 3366 | 3366\_nlr\_1 | complete | 969124 | 973018 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,19,11,11,11,11,11,19,11,11,11,11 |
| 221517 | 221517\_nlr\_1 | complete | 2811 | 6219 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11 |
| 235094 | 235094\_nlr\_1 | partial | 180 | 1587 | - | 17,16,1,6,4,5,10,3,12,2,8 |
| 279890 | 279890\_nlr\_1 | complete | 8280 | 11765 | + | 16,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11,11,11 |
| 578 | 578\_nlr\_1 | complete | 58596 | 62405 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11 |
| 578 | 578\_nlr\_2 | complete | 9514 | 13889 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11,11,11 |
| 284194 | 284194\_nlr\_1 | complete (pseudogene) | 7979 | 11937 | - | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,19,11,11,11,11 |
| tig00086316 | tig00086316\_nlr\_1 | complete | 38791 | 44946 | + | 17,16,1,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11,11 |
| 3329 | 3329\_nlr\_1 | complete | 203094 | 206730 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,9,9,9,9,9,9,9,9,19,11,11 |
| 2230 | 2230\_nlr\_1 | complete (pseudogene) | 303624 | 311047 | - | 17,1,6,4,5,10,3,12,2,8,9,9,19,11,11,19,19,11,11,11,11 |
| tig01553516 | tig01553516\_nlr\_1 | partial (pseudogene) | 97433 | 98101 | + | 12,2,8,7,9,9 |
| tig00019850 | tig00019850\_nlr\_1 | complete | 2251801 | 2254060 | + | 1,6,4,5,10,3,12,2,7,9,9,9,11,11,11,11 |
| tig00205729 | tig00205729\_nlr\_1 | partial (pseudogene) | 323 | 2168 | - | 14,1,6,4,10,12,8 |
| 265022 | 265022\_nlr\_1 | complete | 3989 | 8053 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,19,11,11,11,11 |
| 531 | 531\_nlr\_1 | partial | 92608 | 92923 | - | 6,4,5 |
| tig00015484 | tig00015484\_nlr\_1 | partial | 14141 | 16226 | + | 6,4,5,2,9,9,11,11,11,11 |
| tig00015483 | tig00015483\_nlr\_1 | complete | 52626 | 55512 | - | 16,1,6,4,5,10,3,12,2,8,7,11,11,11,11,11,11,11,11 |
| tig00198661 | tig00198661\_nlr\_1 | complete (pseudogene) | 107203 | 111938 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,9,11,11,19 |
| tig00045456 | tig00045456\_nlr\_1 | complete (pseudogene) | 9293 | 12709 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,9,9,9,9,9,9,9,19,11,11 |
| tig00097833 | tig00097833\_nlr\_1 | complete (pseudogene) | 16465 | 18097 | - | 16,1,6,4,5,10,3,12,2,8,7,9 |
| 508 | 508\_nlr\_1 | partial (pseudogene) | 482225 | 482623 | + | 2,8,7 |
| tig00067837 | tig00067837\_nlr\_1 | partial (pseudogene) | 5546 | 8524 | + | 4,5,10,2,9,9,11,11,11 |
| tig00198638 | tig00198638\_nlr\_1 | complete | 11882 | 14384 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,11,19,11,11 |
| tig00008963 | tig00008963\_nlr\_1 | complete | 10275 | 12361 | + | 1,4,5,10,3,2,7,9,9,11,11,11,11,11 |
| 277631 | 277631\_nlr\_1 | partial (pseudogene) | 161 | 884 | - | 4,5,10,3,12,2,7 |
| 7098 | 7098\_nlr\_1 | complete (pseudogene) | 763 | 3837 | - | 17,1,4,5,10,2,7,9,9,11 |
| tig00012163 | tig00012163\_nlr\_1 | complete (pseudogene) | 203173 | 206110 | + | 1,6,4,5,10,3,12,11,9,11,11,11,9,11,11,11,20 |
| tig00012163 | tig00012163\_nlr\_2 | complete (pseudogene) | 234831 | 242802 | + | 1,6,4,3,12,2,8,7,11,11,11,19 |
| tig01557269 | tig01557269\_nlr\_1 | complete (pseudogene) | 720 | 2836 | - | 17,16,1,6,4,5,3,12,2,8,7,9,9,19 |
| tig00014325 | tig00014325\_nlr\_1 | complete | 15304 | 17391 | + | 1,6,4,5,3,2,7,11,9,11,11,11,11,11 |
| tig00014325 | tig00014325\_nlr\_2 | partial (pseudogene) | 376924 | 377700 | - | 1,4,5,10,3,2 |
| tig00014325 | tig00014325\_nlr\_3 | complete | 317115 | 319263 | - | 1,4,5,10,3,2,7,11,9,11,11,11,11,11,11 |
| tig00210674 | tig00210674\_nlr\_1 | complete | 7791 | 11193 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11,11 |
| tig00011057 | tig00011057\_nlr\_1 | partial | 979423 | 980146 | - | 4,5,10,3,12,2,7 |
| 264563 | 264563\_nlr\_1 | partial | 16092 | 21862 | - | 12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig00062328 | tig00062328\_nlr\_1 | complete | 12433 | 15664 | + | 16,1,4,10,3,2,8,7,9,9,11,11,11,11 |
| 291250 | 291250\_nlr\_1 | complete | 60821 | 64743 | - | 17,1,6,4,5,10,3,12,2,8,7,9,9,9,19,11,11,19,11,11,11,11,11,11 |
| 291250 | 291250\_nlr\_2 | complete | 51969 | 55128 | - | 17,16,1,6,4,5,10,3,12,2,8,9,9,11,19,11,11,11,11,11,11 |
| 132632 | 132632\_nlr\_1 | partial (pseudogene) | 1569 | 2095 | + | 4,5,10,3,2 |
| tig01550821 | tig01550821\_nlr\_1 | complete | 3035 | 5023 | - | 1,4,5,3,12,2,7,9,11,11,11 |
| tig01551908 | tig01551908\_nlr\_1 | complete (pseudogene) | 1512 | 3364 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,11 |
| 280382 | 280382\_nlr\_1 | complete | 1383 | 5136 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,11,11,19,11,11,11,11,11,11,11,11,11 |
| 285815 | 285815\_nlr\_1 | complete | 64523 | 69358 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,19,11,11,11,11,11,11,11,11,11,19,11,11,11 |
| 285815 | 285815\_nlr\_2 | complete (pseudogene) | 15283 | 22464 | - | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11,11,11,11,11,9,19,11,11,11,11,9 |
| tig00099342 | tig00099342\_nlr\_1 | complete (pseudogene) | 21274 | 23678 | + | 16,1,6,4,5,10,3,12,2,8,11 |
| tig00014949 | tig00014949\_nlr\_1 | partial | 69750 | 70997 | + | 2,8,7,11,11,11,11 |
| 270593 | 270593\_nlr\_1 | partial (pseudogene) | 5898 | 8890 | - | 14,4,5,10,3,2,11,9,9 |
| 270593 | 270593\_nlr\_2 | partial (pseudogene) | 2505 | 3621 | - | 4,5,10,3,2,8,9,9,11 |
| tig01557876 | tig01557876\_nlr\_1 | complete | 22122 | 24393 | - | 1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,9 |
| 243862 | 243862\_nlr\_1 | partial | 505 | 889 | + | 1,6,4,5 |
| 224722 | 224722\_nlr\_1 | partial | 579 | 2805 | - | 13,1,4,5,10,3 |
| 223629 | 223629\_nlr\_1 | partial | 2468 | 3191 | + | 4,5,10,3,12,2,7 |
| 512501 | 512501\_nlr\_1 | complete | 14357 | 16442 | + | 1,6,4,5,3,2,7,11,9,9,11,11,11,11 |
| 512501 | 512501\_nlr\_2 | partial | 5645 | 6011 | - | 1,6,4,5 |
| 512500 | 512500\_nlr\_1 | complete | 14488 | 16573 | + | 1,6,4,5,3,2,7,11,9,9,11,11,11,11 |
| 512500 | 512500\_nlr\_2 | partial | 5644 | 6010 | - | 1,6,4,5 |
| 287393 | 287393\_nlr\_1 | complete | 2530 | 5044 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11 |
| tig00007154 | tig00007154\_nlr\_1 | complete (pseudogene) | 1270 | 3124 | - | 17,1,6,4,5,2,7,9 |
| 261850 | 261850\_nlr\_1 | complete | 1194 | 3335 | + | 1,6,4,5,10,3,12,2,7,11,9,11 |
| tig00057335 | tig00057335\_nlr\_1 | complete (pseudogene) | 264 | 3674 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,20 |
| 227396 | 227396\_nlr\_1 | complete | 1335 | 4584 | + | 1,6,4,5,10,3,12,2,8,7,9,11,9,11,11,11,11,11,11,11,11,11,11,11 |
| 455 | 455\_nlr\_1 | partial (pseudogene) | 524090 | 526473 | + | 1,2,8,7 |
| 452 | 452\_nlr\_1 | partial | 145510 | 145774 | + | 2,8,7 |
| 509779 | 509779\_nlr\_1 | complete | 26735 | 29936 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,9,11,11,11,11,11,11 |
| 509778 | 509778\_nlr\_1 | complete | 26719 | 29635 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,9,11,11,11,11,11,11 |
| 446 | 446\_nlr\_1 | complete | 76774 | 79618 | - | 17,16,1,6,4,5,10,3,12,2,8,9,9,11,19,11,11,11 |
| 436 | 436\_nlr\_1 | complete | 162875 | 164615 | + | 16,1,6,4,5,10,3,12,2,8,9,9,9,9 |
| 436 | 436\_nlr\_2 | complete | 448190 | 451310 | + | 16,1,6,4,5,10,3,12,2,8,9,9,9,9,9,11,9,19,9,11,11,11,11 |
| 436 | 436\_nlr\_3 | complete | 480930 | 483648 | - | 16,1,4,5,10,3,12,2,8,7,9,9,9,9,9,9,19,19,11,11,11,11 |
| 417 | 417\_nlr\_1 | partial | 477041 | 478907 | + | 4,5,10,3,12,2,8,7,9,9,11,11,19,11,11 |
| 417 | 417\_nlr\_2 | complete | 482308 | 485146 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11 |
| 417 | 417\_nlr\_3 | complete | 439672 | 442396 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11 |
| 417 | 417\_nlr\_4 | complete | 318821 | 321617 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11 |
| 406 | 406\_nlr\_1 | partial | 456741 | 457564 | + | 3,12,2,7,9,9,11 |
| tig00012096 | tig00012096\_nlr\_1 | complete | 223164 | 225641 | - | 13,1,6,4,5,10,3,12,2,7,9,9,11,11,11 |
| 269963 | 269963\_nlr\_1 | complete (pseudogene) | 4148 | 7471 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,9,11,11,11,9,9 |
| 269963 | 269963\_nlr\_2 | partial | 18067 | 19087 | + | 17,16,1,6,4,5,10 |
| tig00007775 | tig00007775\_nlr\_1 | complete (pseudogene) | 89283 | 92432 | - | 16,1,6,4,3,12,2,8,19,11,11,11,11 |
| tig00007775 | tig00007775\_nlr\_2 | complete (pseudogene) | 74333 | 78866 | - | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11,11,11 |
| tig00007775 | tig00007775\_nlr\_3 | complete (pseudogene) | 54354 | 61410 | - | 16,1,6,4,5,3,12,2,7,7,11,9,11 |
| tig00007775 | tig00007775\_nlr\_4 | complete (pseudogene) | 38550 | 43017 | - | 1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,19,19 |
| tig00007775 | tig00007775\_nlr\_5 | complete (pseudogene) | 23352 | 29071 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,9,19,11,11,11,11,11 |
| tig00007775 | tig00007775\_nlr\_6 | complete | 8693 | 11180 | - | 16,1,6,4,5,10,3,2,8,7,9,19,11 |
| 2792 | 2792\_nlr\_1 | complete | 2681 | 5235 | - | 16,1,6,4,5,10,12,2,8,7,9,9,11,11,11 |
| tig00213877 | tig00213877\_nlr\_1 | complete (pseudogene) | 3166 | 7564 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,9,11,11,11,11,11 |
| 2783 | 2783\_nlr\_1 | complete | 151463 | 154139 | - | 17,1,6,4,5,10,3,2,8,7,9,9,11,11,11,11,11 |
| 2783 | 2783\_nlr\_2 | complete | 125818 | 128494 | - | 17,1,6,4,5,10,3,2,7,9,9,11,11,11,11,11,11,11 |
| tig00017509 | tig00017509\_nlr\_1 | complete | 24219 | 28742 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,9,9,9,9,9,9,9,9,19,11,11,20 |
| 265577 | 265577\_nlr\_1 | complete (pseudogene) | 2398 | 6453 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,20 |
| 265577 | 265577\_nlr\_2 | complete | 11819 | 14566 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11 |
| tig00053577 | tig00053577\_nlr\_1 | partial (pseudogene) | 379889 | 381431 | + | 1,5,10,3,7 |
| 291178 | 291178\_nlr\_1 | partial | 450001 | 450723 | + | 4,5,10,3,12,2,7 |
| tig00000092 | tig00000092\_nlr\_1 | partial (pseudogene) | 673355 | 673631 | + | 1,6,4 |
| 1644 | 1644\_nlr\_1 | complete | 11624 | 14213 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11 |
| tig00207178 | tig00207178\_nlr\_1 | complete (pseudogene) | 40181 | 43495 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11 |
| 292238 | 292238\_nlr\_1 | complete (pseudogene) | 1722 | 3530 | + | 16,1,6,4,5,7,9 |
| tig00022443 | tig00022443\_nlr\_1 | complete (pseudogene) | 11158 | 13776 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,11,11 |
| tig00022443 | tig00022443\_nlr\_2 | complete | 69865 | 71676 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9 |
| tig00195862 | tig00195862\_nlr\_1 | complete | 1325621 | 1328931 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11 |
| tig00012659 | tig00012659\_nlr\_1 | complete (pseudogene) | 13607 | 20115 | - | 16,1,6,4,5,3,12,2,8,7,9,19,11,11,11,11,11,11,11,11,11,11,11 |
| 178208 | 178208\_nlr\_1 | partial | 66 | 1215 | - | 16,1,6,4 |
| tig01554483 | tig01554483\_nlr\_1 | partial (pseudogene) | 328044 | 331652 | - | 17,12,2,8,11 |
| tig00111277 | tig00111277\_nlr\_1 | complete | 24131 | 26299 | + | 1,6,4,5,10,3,12,2,7,11,11,11,11 |
| tig00111277 | tig00111277\_nlr\_2 | complete | 35677 | 37863 | - | 1,6,4,5,10,3,12,2,7,11,9,11,11,11 |
| 3189 | 3189\_nlr\_1 | complete (pseudogene) | 130065 | 135076 | + | 16,1,6,4,5,10,3,12,2,8,7,9,11,19,11,11,11,11,11,11,19,11,11,11 |
| tig00194700 | tig00194700\_nlr\_1 | complete | 60854 | 63059 | + | 1,6,4,5,10,2,7,9,9,11,11,11,11 |
| tig00194700 | tig00194700\_nlr\_2 | complete (pseudogene) | 29778 | 32227 | - | 16,1,6,4,10,3,2,7,19,19,11,11,11 |
| 382 | 382\_nlr\_1 | complete | 1186822 | 1189528 | - | 17,16,1,6,4,5,10,3,12,2,7,9,9,11,19,11 |
| 382 | 382\_nlr\_2 | complete | 1171117 | 1173817 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11 |
| 3149 | 3149\_nlr\_1 | complete | 161414 | 163925 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,9,11,11 |
| tig00007023 | tig00007023\_nlr\_1 | complete (pseudogene) | 551243 | 554222 | + | 18,1,6,4,5,10,3,12,2,7,11,9,11,11,11,11 |
| 475309 | 475309\_nlr\_1 | partial | 1011 | 3040 | + | 4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11 |
| 249698 | 249698\_nlr\_1 | partial (pseudogene) | 288 | 1334 | - | 4,5,10,3,2,11,9,9 |
| 515083 | 515083\_nlr\_1 | complete | 189 | 4512 | + | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11,11,11,19 |
| tig00214207 | tig00214207\_nlr\_1 | complete | 11761 | 13592 | - | 17,16,1,4,5,10,3,12,2,8,7,9 |
| 353 | 353\_nlr\_1 | partial | 984143 | 984419 | + | 2,8,7 |
| tig00077433 | tig00077433\_nlr\_1 | partial | 52581 | 52857 | + | 1,6,4 |
| 507492 | 507492\_nlr\_1 | complete | 4897 | 7693 | - | 1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11,11,11,11 |
| 515065 | 515065\_nlr\_1 | complete | 7252 | 12656 | + | 16,1,6,4,5,10,3,12,2,8,7,9,11,19,11,11,11,11,11,11,11,11,11,11,19,11,11,11,19,11,11,11 |
| 515065 | 515065\_nlr\_2 | complete (pseudogene) | 16793 | 22896 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,19,11,11,11,11,11,11 |
| 220882 | 220882\_nlr\_1 | partial | 6110 | 6323 | + | 4,5,10 |
| 281901 | 281901\_nlr\_1 | partial | 69 | 1350 | + | 3,12,2,8,7,9,19 |
| tig01559281 | tig01559281\_nlr\_1 | complete (pseudogene) | 20669 | 31235 | - | 17,1,6,4,5,3,2,11 |
| tig01560470 | tig01560470\_nlr\_1 | complete (pseudogene) | 7367 | 9975 | - | 16,1,6,4,5,3,2,8,7,9,11,19,11,11,11 |
| tig00007666 | tig00007666\_nlr\_1 | complete | 1044999 | 1047330 | + | 1,6,4,5,3,12,2,7,9,11,11,11,11,11 |
| tig00007666 | tig00007666\_nlr\_2 | complete | 1059645 | 1061970 | + | 1,6,4,5,3,12,2,7,9,11,9,11,11,11,11 |
| tig00007666 | tig00007666\_nlr\_3 | complete | 1072929 | 1075245 | + | 1,6,4,5,3,12,2,7,9,9,11,11,11,11,11,11 |
| 152021 | 152021\_nlr\_1 | complete | 59 | 1274 | - | 1,6,4,5,10,3,12,2,8,7,9 |
| 294386 | 294386\_nlr\_1 | complete | 139 | 4121 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,9,11,11,11,11,11,11,11 |
| 507420 | 507420\_nlr\_1 | complete | 28563 | 32049 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,11,19,11,11,11,11,11,11,11,11 |
| 18289 | 18289\_nlr\_1 | partial | 1954 | 2317 | + | 1,6,4,5 |
| tig00200005 | tig00200005\_nlr\_1 | complete (pseudogene) | 23865 | 27249 | + | 16,1,6,4,5,10,2,7,9,11,11,11,11,11,11 |
| tig00200005 | tig00200005\_nlr\_2 | complete | 42623 | 46749 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,11,11 |
| tig00200005 | tig00200005\_nlr\_3 | complete | 134615 | 138219 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11 |
| tig00200005 | tig00200005\_nlr\_4 | complete | 179783 | 183425 | + | 17,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11 |
| tig01558150 | tig01558150\_nlr\_1 | complete (pseudogene) | 8855 | 14680 | - | 1,6,4,5,10,3,12,2,8,9,11,20 |
| tig00197307 | tig00197307\_nlr\_1 | complete | 233960 | 236153 | + | 1,6,4,5,10,3,12,2,7,11,9,11,11,11,11 |
| tig00197307 | tig00197307\_nlr\_2 | complete | 18647 | 20820 | - | 1,6,4,5,10,3,12,2,7,9,11,11 |
| tig00197307 | tig00197307\_nlr\_3 | complete | 3098 | 4975 | - | 1,6,4,5,10,3,12,2,7,9,11,11 |
| 2644 | 2644\_nlr\_1 | complete | 2174 | 6640 | + | 16,1,6,4,5,10,3,12,2,7,11,19,11,11,11,11,11,11,11,9,19,11,11,11 |
| 2644 | 2644\_nlr\_2 | partial | 13146 | 14741 | + | 16,1,6,5,10,3,12,2,8,7 |
| 2644 | 2644\_nlr\_3 | complete | 123003 | 127228 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,9,11,11,11 |
| 2644 | 2644\_nlr\_4 | complete | 184274 | 186804 | + | 1,6,4,5,10,3,12,2,8,7,9,19,11,11,11 |
| 2644 | 2644\_nlr\_5 | complete | 197771 | 202311 | + | 16,1,6,4,5,10,3,12,2,8,7,9,11,19,11,11,11,11,11,19,11,11,11 |
| 2644 | 2644\_nlr\_6 | complete | 206844 | 210918 | + | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11,11,11,11,11,11 |
| 269800 | 269800\_nlr\_1 | complete | 26012 | 28577 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11 |
| 2635 | 2635\_nlr\_1 | complete | 10879 | 13639 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,9,11,11,11 |
| 2635 | 2635\_nlr\_2 | complete (pseudogene) | 34464 | 37478 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,9,11,11,11,11,9 |
| 2635 | 2635\_nlr\_3 | complete (pseudogene) | 56653 | 59677 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,9,11,11,9 |
| tig01560408 | tig01560408\_nlr\_1 | complete (pseudogene) | 2418 | 6984 | - | 16,1,6,4,10,3,12,2,8,9,19,11,11,11,11,11,11,11,9,19,11 |
| 2628 | 2628\_nlr\_1 | partial | 58890 | 59842 | - | 17,16,1,6,4,5 |
| 2628 | 2628\_nlr\_2 | partial (pseudogene) | 46107 | 48764 | - | 10,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11,11 |
| 385399 | 385399\_nlr\_1 | complete | 6190 | 10135 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,9 |
| 282389 | 282389\_nlr\_1 | complete | 7545 | 12304 | - | 17,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11,11 |
| tig00015882 | tig00015882\_nlr\_1 | complete (pseudogene) | 180737 | 184556 | + | 17,16,1,6,4,5,10,3,2,8,7,9,9,19,11,19,11,11,11,11,11,11,11 |
| 1517 | 1517\_nlr\_1 | complete | 6988 | 9586 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,9,9,9,11,11,11,11 |
| 292128 | 292128\_nlr\_1 | complete | 114 | 1390 | + | 1,6,4,5,10,3,12,2,8,7,9,11 |
| tig00015867 | tig00015867\_nlr\_1 | complete | 263095 | 265918 | + | 1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11 |
| tig00015867 | tig00015867\_nlr\_2 | complete | 397603 | 400099 | + | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11 |
| tig00015867 | tig00015867\_nlr\_3 | complete | 365905 | 368134 | - | 1,6,4,5,10,3,2,7,9,9,11,11,11,11,11 |
| 906 | 906\_nlr\_1 | partial | 56951 | 57227 | + | 1,6,4 |
| 183707 | 183707\_nlr\_1 | complete | 6582 | 10714 | + | 1,6,4,5,10,3,12,2,8,7,9,11,9,19,11,11,11,11,11,11,11,11,9,11,11,11 |
| 292100 | 292100\_nlr\_1 | complete | 87417 | 91179 | + | 16,1,6,4,5,10,3,12,2,8,7,9,11,9,9,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig01566365 | tig01566365\_nlr\_1 | complete | 6002 | 9850 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11 |
| 246945 | 246945\_nlr\_1 | complete | 1267 | 3397 | + | 1,6,4,5,10,3,2,7,11,9,9,11,11,11,11,11 |
| tig00031697 | tig00031697\_nlr\_1 | complete (pseudogene) | 10620 | 14093 | - | 1,6,5,10,3,12,2,8,9,9,19,11,11,11,11,11,11,11 |
| tig00038062 | tig00038062\_nlr\_1 | partial (pseudogene) | 22639 | 25332 | + | 15,2,8,7 |
| 293853 | 293853\_nlr\_1 | complete | 9308 | 13437 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11,11,11,11,11 |
| 250120 | 250120\_nlr\_1 | complete | 3627 | 6252 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11 |
| tig01554356 | tig01554356\_nlr\_1 | complete | 25526 | 29832 | - | 1,4,10,12,2,8,7,9,19,11,11,11,11,11,11,11,11,11,11,9 |
| tig01554356 | tig01554356\_nlr\_2 | complete (pseudogene) | 4226 | 15039 | - | 1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11,9,9,19,11,11,9,11,11,11,11,19 |
| tig01554356 | tig01554356\_nlr\_3 | partial (pseudogene) | 4226 | 8886 | - | 6,4,5,10,3,12,2,8,7,9,19,11,11,9,11,11,11,11,19 |
| 512986 | 512986\_nlr\_1 | complete | 20630 | 26820 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11,11,11 |
| tig01553247 | tig01553247\_nlr\_1 | partial (pseudogene) | 105755 | 107486 | + | 5,10,3,12,2,8,7,9,9,19,11 |
| 3036 | 3036\_nlr\_1 | complete | 39513 | 43505 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11 |
| 3036 | 3036\_nlr\_2 | complete | 136934 | 141137 | + | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11 |
| 3036 | 3036\_nlr\_3 | complete (pseudogene) | 277248 | 279732 | - | 17,16,1,6,4,5,3,12,2,8,7,9,9,11,19,11 |
| 3036 | 3036\_nlr\_4 | complete | 266109 | 270234 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,9,11,11,9,11,11,11,11,11,11 |
| 3036 | 3036\_nlr\_5 | complete | 248571 | 252819 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,9,11,11,11,11,11,11 |
| 3036 | 3036\_nlr\_6 | complete | 194819 | 199052 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,9,11,11,11,11,11,11,11 |
| 3036 | 3036\_nlr\_7 | complete | 177600 | 182010 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,9,11,11,11,11,11,11,11 |
| 3036 | 3036\_nlr\_8 | partial | 167866 | 169366 | - | 4,3,12,2,8,7,9,11,19,11 |
| 3036 | 3036\_nlr\_9 | complete | 13073 | 16421 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11 |
| 184157 | 184157\_nlr\_1 | partial | 118 | 1432 | - | 16,1,6,5,10,3,2,8,7 |
| tig00000538 | tig00000538\_nlr\_1 | partial | 368163 | 369730 | + | 17,16,1,6,4,5,10,3,12,2,8,7 |
| tig00000538 | tig00000538\_nlr\_2 | complete | 773440 | 777286 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11,11 |
| tig00205443 | tig00205443\_nlr\_1 | complete (pseudogene) | 6324 | 10413 | + | 16,1,6,4,5,10,2,8,7,9,19,11,11,11,11,9,11,11,11 |
| tig00205443 | tig00205443\_nlr\_2 | complete (pseudogene) | 20176 | 24451 | + | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,11,19 |
| tig00204357 | tig00204357\_nlr\_1 | complete (pseudogene) | 12022 | 19063 | + | 16,1,6,4,10,3,12,2,8,9,11,19,19,11,11,11,19,11,9,11,11,19,11,11,11,11,11,11 |
| tig00204357 | tig00204357\_nlr\_2 | complete | 33591 | 36734 | + | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11 |
| tig00204357 | tig00204357\_nlr\_3 | complete | 60891 | 64990 | + | 16,1,6,4,5,10,3,12,2,8,7,9,19,11,11,11,11,11,9,19,11,11 |
| tig00010997 | tig00010997\_nlr\_1 | complete (pseudogene) | 2919 | 7357 | + | 1,6,4,5,3,12,2,7,9,9,11,11,11,11,19,11,19 |
| 197842 | 197842\_nlr\_1 | complete | 6420 | 8448 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,11 |
| tig01564731 | tig01564731\_nlr\_1 | complete (pseudogene) | 568 | 4332 | + | 1,6,4,10,12,2,8,7,9,19,11,11,11,11,11,9,11 |
| tig01564731 | tig01564731\_nlr\_2 | complete (pseudogene) | 29000 | 33474 | + | 16,1,6,4,10,3,12,2,8,7,9,11,19,11,11,11,11,11,11,11,11,11,11,11,11,11 |
| tig01564731 | tig01564731\_nlr\_3 | complete (pseudogene) | 39140 | 44392 | + | 1,6,4,10,3,12,2,8,9,19,11,11,11,11,11,11,11,11 |
| tig01564731 | tig01564731\_nlr\_4 | complete | 57975 | 63002 | + | 16,1,6,4,10,3,12,2,8,7,9,19,11,11,11,11,11,11,11,19,11 |
| 201 | 201\_nlr\_1 | complete | 101912 | 104330 | + | 16,1,6,4,5,10,3,12,2,8,7,11,9,9,11,11 |
| 516009 | 516009\_nlr\_1 | complete (pseudogene) | 4578 | 6724 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11 |
| 875 | 875\_nlr\_1 | complete | 121438 | 125330 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11,11 |
| 875 | 875\_nlr\_2 | complete (pseudogene) | 46482 | 49617 | - | 17,1,6,4,5,10,3,12,2,8,7,9,11,9,19,11,11,11,11,11,11,11,11,11 |
| 875 | 875\_nlr\_3 | complete | 21855 | 27289 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,11,11,11,11,11,11 |
| 287766 | 287766\_nlr\_1 | complete (pseudogene) | 130812 | 132946 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,19 |
| 287766 | 287766\_nlr\_2 | complete | 38135 | 40040 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9 |
| 2552 | 2552\_nlr\_1 | complete | 159457 | 162257 | + | 1,4,10,3,12,2,8,7,11,9,9,11,11,11,11,11,11,19 |
| 2552 | 2552\_nlr\_2 | complete (pseudogene) | 113359 | 115383 | - | 1,6,4,5,10,3,2,7,9,9,11,11,11 |
| tig00087701 | tig00087701\_nlr\_1 | complete (pseudogene) | 1227706 | 1231498 | + | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,19,11,11,9,19,11,11,11,11,11,11 |
| tig00196100 | tig00196100\_nlr\_1 | complete (pseudogene) | 148195 | 152524 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,9,11,11,11,11,11,11 |
| 1454 | 1454\_nlr\_1 | complete | 17314 | 20767 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,9,9,9,9,9,9,9,9,9,19,11,11,11 |
| 1447 | 1447\_nlr\_1 | complete | 74311 | 77929 | - | 17,16,1,6,4,5,10,3,12,2,7,9,11,11,11,11,11,11,11,11,11,11 |
| 1444 | 1444\_nlr\_1 | partial (pseudogene) | 413459 | 416336 | - | 4,2,8,7,9,9 |
| tig00054433 | tig00054433\_nlr\_1 | complete (pseudogene) | 12373 | 15181 | - | 17,16,1,6,4,5,10,3,12,2,8,19,11,9,9,11,9,19,11,11,11,11 |
| tig01552701 | tig01552701\_nlr\_1 | complete (pseudogene) | 9517 | 11291 | + | 1,6,4,5,10,3,12,2,8,7,9,11,20 |
| tig01552701 | tig01552701\_nlr\_2 | partial (pseudogene) | 25755 | 28955 | + | 6,4,5,10,3,12,2,8,7,9,11,19,11,9,11,11,11,11,11 |
| 1405 | 1405\_nlr\_1 | complete | 171047 | 174188 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,19,11,11,11,11,11,11,11,11,11 |
| 1405 | 1405\_nlr\_2 | complete | 136377 | 139944 | - | 16,1,6,4,5,10,3,12,2,8,7,9,11,9,11,11,11,11,11,11,11,11 |
| 1405 | 1405\_nlr\_3 | complete | 63564 | 67023 | - | 16,1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11 |
| tig00200546 | tig00200546\_nlr\_1 | complete | 42368 | 46539 | - | 17,16,1,4,5,3,12,2,8,7,9,9,11,11,11,9,11,11,11,11,11,11,11 |
| tig00200546 | tig00200546\_nlr\_2 | complete (pseudogene) | 25519 | 29884 | - | 17,16,1,6,4,5,10,3,12,2,8,7,9,9,19,11,9,11,11,11,11,11 |
| tig00200546 | tig00200546\_nlr\_3 | partial | 18224 | 19721 | - | 4,3,12,2,8,7,9,11,19,11 |
| tig00002007 | tig00002007\_nlr\_1 | complete | 47554 | 51027 | - | 16,1,6,4,5,3,12,2,8,7,9,11,11,11,11,11,11,11,11 |
| tig00002007 | tig00002007\_nlr\_2 | complete | 22067 | 25535 | - | 1,6,4,5,10,3,12,2,8,7,9,9,11,11,11,11,11,11,11,11,11,11,11,11 |