|  |
| --- |
| **Table S1** **Repetition type frequency of microsatellite loci in the preliminary and updated assembly** |
| Repeats | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16-65 | Total |
| A/T | - | - | - | - | - | 107847 | 17854 | 4178 | 1555 | 690 | 346 | 712 | 133182 |
| C/G | - | - | - | - | - | 25254 | 18816 | 14282 | 10990 | 8231 | 5586 | 20466 | 103625 |
| AC/GT | - | 118058 | 51168 | 24146 | 12784 | 7436 | 4882 | 3015 | 2053 | 1434 | 1095 | 3018 | 229089 |
| AG/CT | - | 107441 | 50399 | 25731 | 15215 | 9568 | 6392 | 3994 | 2620 | 1879 | 1317 | 2332 | 226888 |
| AT/AT | - | 4749 | 2438 | 1340 | 924 | 713 | 617 | 490 | 534 | 409 | 298 | 349 | 12861 |
| CG/CG | - | 527 | 179 | 64 | 17 | 5 |  |  |  |  |  |  | 792 |
| AAC/GTT | 632 | 177 | 76 | 27 | 9 | 5 | 2 | 4 | 4 |  |  |  | 936 |
| AAG/CTT | 655 | 145 | 48 | 6 | 17 | 7 | 11 | 2 | 6 | 1 | 1 |  | 899 |
| AAT/ATT | 774 | 231 | 153 | 83 | 57 | 49 | 43 | 35 | 13 |  |  | 4 | 1442 |
| ACC/GGT | 2161 | 643 | 256 | 130 | 73 | 20 | 9 | 3 | 3 |  |  |  | 3298 |
| ACG/CGT | 47 | 24 | 11 | 4 | 4 | 1 | 1 |  |  |  |  |  | 92 |
| ACT/AGT | 113 | 40 | 17 | 12 | 8 | 6 | 1 | 6 | 3 | 1 |  |  | 207 |
| AGC/CTG | 1587 | 437 | 183 | 65 | 38 | 14 | 6 | 3 | 4 |  |  | 1 | 2338 |
| AGG/CCT | 2050 | 701 | 312 | 136 | 63 | 39 | 22 | 18 | 5 |  | 1 |  | 3347 |
| ATC/ATG | 956 | 352 | 141 | 65 | 34 | 22 | 8 | 4 | 4 | 1 |  | 1 | 1588 |
| CCG/CGG | 198 | 70 | 22 | 7 | 1 | 1 | 1 | 1 | 3 |  |  |  | 304 |
| AAAC/GTTT | 135 | 57 | 25 | 20 | 7 | 3 |  |  |  |  |  |  | 247 |
| AAAG/CTTT | 251 | 119 | 71 | 36 | 41 | 3 |  | 1 | 1 | 1 | 1 | 1 | 526 |
| AAAT/ATTT | 344 | 154 | 57 | 25 | 16 | 4 | 1 |  |  |  |  |  | 601 |
| AACC/GGTT | 26 | 13 | 2 |  | 1 |  |  |  |  |  |  |  | 42 |
| AACG/CGTT | 3 | 4 | 2 |  |  |  |  | 1 |  |  |  | 1 | 11 |
| AACT/AGTT | 13 | 9 | 1 |  |  |  |  | 1 |  |  |  |  | 24 |
| AAGC/CTTG | 7 |  | 2 | 1 |  |  |  |  |  |  |  |  | 10 |
| AAGG/CCTT | 122 | 36 | 29 | 19 | 17 | 2 | 1 |  |  |  |  |  | 226 |
| AAGT/ACTT | 21 | 6 | 1 |  |  |  |  | 1 |  |  |  |  | 29 |
| AATC/ATTG | 188 | 73 | 16 | 10 | 10 | 3 |  | 1 |  |  |  |  | 301 |
| AATG/ATTC | 326 | 103 | 34 | 22 | 13 | 1 |  |  |  |  |  |  | 499 |
| AATT/AATT | 59 | 15 | 7 | 3 |  |  |  |  |  |  |  |  | 84 |
| ACAG/CTGT | 735 | 205 | 71 | 33 | 30 | 9 | 2 | 2 | 1 |  |  | 2 | 1090 |
| ACAT/ATGT | 72 | 30 | 15 | 5 | 3 |  |  |  |  |  |  |  | 125 |
| ACCC/GGGT | 82 | 14 | 4 | 1 |  |  |  |  |  |  |  |  | 101 |
| ACCG/CGGT | 5 | 2 |  |  | 1 |  |  |  |  |  |  |  | 8 |
| ACCT/AGGT | 14 | 4 | 3 | 2 | 1 |  |  |  |  |  |  |  | 24 |
| ACGC/CGTG | 13 | 4 | 3 |  | 1 | 1 |  |  |  |  |  |  | 22 |
| ACGG/CCGT | 24 | 9 | 8 | 2 | 2 |  |  |  |  |  |  |  | 45 |
| ACGT/ACGT | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| ACTC/AGTG | 489 | 192 | 64 | 49 | 55 | 9 | 5 | 1 | 1 | 2 |  | 2 | 869 |
| ACTG/AGTC | 129 | 39 | 24 | 5 | 8 | 7 |  |  |  |  |  |  | 212 |
| AGAT/ATCT | 311 | 189 | 135 | 179 | 199 | 3 | 3 |  | 2 | 2 | 1 | 18 | 1042 |
| AGCC/CTGG | 24 | 4 | 2 | 1 | 1 | 2 |  |  |  |  |  |  | 34 |
| AGCG/CGCT | 15 | 2 |  |  |  |  |  |  |  |  |  |  | 17 |
| AGGC/CCTG | 24 | 5 | 4 |  | 1 | 1 |  |  |  |  |  |  | 35 |
| AGGG/CCCT | 563 | 142 | 54 | 14 | 5 | 3 |  |  |  |  |  |  | 781 |
| ATCC/ATGG | 63 | 35 | 15 | 8 | 13 | 6 |  |  |  |  |  |  | 140 |
| ATCG/ATCG | 5 | 1 |  |  |  |  |  |  |  |  |  |  | 6 |
| ATGC/ATGC | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| CCCG/CGGG | 4 | 1 | 2 |  |  |  |  |  |  |  |  |  | 7 |
| AAAAC/GTTTT | 12 | 3 |  | 3 |  |  |  |  |  |  |  |  | 18 |
| AAAAG/CTTTT | 10 | 1 | 2 | 3 |  |  |  |  |  |  |  |  | 16 |
| AAAAT/ATTTT | 18 | 5 | 3 |  |  |  |  |  |  |  |  |  | 26 |
| AAACC/GGTTT | 52 | 12 | 3 |  |  |  |  |  |  |  |  |  | 67 |
| AAACT/AGTTT | 4 | 1 |  | 2 |  |  |  |  |  |  |  |  | 7 |
| AAAGC/CTTTG | 4 |  | 2 |  |  |  |  |  |  |  |  |  | 6 |
| AAAGG/CCTTT | 10 | 8 | 5 | 4 |  |  |  |  |  |  |  |  | 27 |
| AAAGT/ACTTT | 2 |  |  | 1 |  |  |  |  |  |  |  |  | 3 |
| AAATC/ATTTG | 174 | 29 | 10 | 5 |  |  |  |  |  |  |  |  | 218 |
| AAATG/ATTTC | 5 | 2 |  |  |  |  |  |  |  |  |  |  | 7 |
| AAATT/AATTT | 19 | 7 | 1 | 3 |  |  |  |  |  |  |  |  | 30 |
| AACAC/GTGTT | 5 |  | 3 | 1 |  |  |  |  |  |  |  |  | 9 |
| AACAG/CTGTT | 6 | 1 | 1 |  |  |  |  |  |  |  |  |  | 8 |
| AACAT/ATGTT | 2 |  |  |  |  | 1 |  |  |  |  |  |  | 3 |
| AACCC/GGGTT | 14 | 2 |  |  |  |  |  |  |  |  |  |  | 16 |
| AACCT/AGGTT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AACTC/AGTTG | 9 | 1 | 3 |  |  |  |  |  |  |  |  |  | 13 |
| AACTG/AGTTC | 11 | 2 |  |  |  |  |  |  |  |  |  |  | 13 |
| AAGAG/CTCTT | 13 | 6 | 6 | 2 |  |  |  |  |  |  |  |  | 27 |
| AAGAT/ATCTT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AAGCC/CTTGG | 2 |  |  | 3 |  |  |  |  |  |  |  |  | 5 |
| AAGGC/CCTTG | 15 | 1 | 3 |  |  |  |  |  |  |  |  |  | 19 |
| AAGGG/CCCTT | 9 | 3 | 9 | 2 |  |  |  |  |  |  |  |  | 23 |
| AAGGT/ACCTT |  | 2 | 1 | 1 |  |  |  |  |  |  |  |  | 4 |
| AAGTG/ACTTC | 4 | 1 |  |  |  |  |  |  |  |  |  |  | 5 |
| AATAC/ATTGT | 5 | 2 | 1 |  |  |  |  |  |  |  |  |  | 8 |
| AATAG/ATTCT | 46 | 13 | 10 | 3 | 1 |  |  |  |  |  |  |  | 73 |
| AATAT/ATATT | 8 | 4 | 4 | 6 | 1 |  |  |  |  |  |  |  | 23 |
| AATCC/ATTGG | 11 | 2 |  |  |  |  |  |  |  |  |  |  | 13 |
| AATCG/ATTCG |  | 1 | 1 |  |  |  |  |  |  |  |  |  | 2 |
| AATCT/AGATT | 3016 | 1023 | 620 | 20 | 10 | 1 | 3 |  | 1 | 1 |  | 5 | 4700 |
| AATGC/ATTGC | 2 |  |  | 3 |  |  |  |  |  |  |  |  | 5 |
| AATGG/ATTCC | 15 | 10 | 3 | 2 |  |  |  |  |  |  |  |  | 30 |
| AATGT/ACATT | 152 | 26 | 8 | 2 |  |  |  |  |  |  |  |  | 188 |
| AATTC/AATTG | 432 | 135 | 43 | 6 | 1 |  |  |  |  |  |  |  | 617 |
| ACACC/GGTGT | 9 | 3 | 1 | 3 |  |  |  |  |  |  |  |  | 16 |
| ACACG/CGTGT | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| ACACT/AGTGT | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| ACAGC/CTGTG | 9 | 4 |  |  |  |  |  |  |  |  |  |  | 13 |
| ACAGG/CCTGT | 21 | 7 | 3 | 3 |  |  |  |  |  |  |  |  | 34 |
| ACAGT/ACTGT | 3 | 1 |  |  |  |  |  |  |  |  |  |  | 4 |
| ACATC/ATGTG | 3 | 4 |  |  |  |  |  |  |  |  |  |  | 7 |
| ACATG/ATGTC | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCAG/CTGGT | 7 | 3 | 4 | 1 |  |  |  |  |  |  |  |  | 15 |
| ACCAT/ATGGT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACCCC/GGGGT | 86 | 24 | 9 | 4 |  |  |  |  |  |  |  |  | 123 |
| ACCCG/CGGGT | 3 |  |  | 1 |  |  |  |  |  |  |  |  | 4 |
| ACCCT/AGGGT | 13 | 2 | 5 | 2 |  |  |  |  |  |  |  |  | 22 |
| ACCGC/CGGTG | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCGG/CCGGT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| ACCTC/AGGTG | 15 | 4 | 5 | 1 |  |  |  |  |  |  |  |  | 25 |
| ACCTG/AGGTC | 5 | 2 |  | 1 |  |  |  |  |  |  |  |  | 8 |
| ACGAG/CGTCT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACGCC/CGTGG | 2 |  |  | 3 |  |  |  |  |  |  |  |  | 5 |
| ACGGC/CCGTG | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| ACGGG/CCCGT | 5 | 2 |  | 2 |  |  |  |  |  |  |  |  | 9 |
| ACGTC/ACGTG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACTAG/AGTCT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACTAT/AGTAT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACTCC/AGTGG | 22 | 9 | 4 | 3 |  |  |  |  |  |  |  |  | 38 |
| ACTCG/AGTCG |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| ACTCT/AGAGT | 1 | 1 |  |  | 1 |  |  |  |  |  |  |  | 3 |
| ACTGC/AGTGC |  |  |  | 1 |  |  |  |  |  |  |  |  | 1 |
| ACTGG/AGTCC | 7 | 2 | 1 | 1 | 1 |  |  |  |  |  |  |  | 12 |
| AGAGC/CTCTG | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| AGAGG/CCTCT | 18 | 12 | 5 | 4 | 1 |  |  |  |  |  |  |  | 40 |
| AGATC/ATCTG | 4 | 3 |  | 1 |  |  |  |  |  |  |  |  | 8 |
| AGATG/ATCTC | 4 | 4 | 1 | 2 |  |  |  |  |  |  |  |  | 11 |
| AGCCC/CTGGG | 22 | 5 | 3 | 1 |  |  |  |  |  |  |  |  | 31 |
| AGCCG/CGGCT | 4 |  |  |  |  |  |  |  |  |  |  |  | 4 |
| AGCCT/AGGCT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AGCTC/AGCTG | 10 | 4 |  |  |  |  |  |  |  |  |  |  | 14 |
| AGGAT/ATCCT | 2 | 3 |  |  |  |  |  |  |  |  |  |  | 5 |
| AGGCC/CCTGG | 9 | 1 |  |  |  |  |  |  |  |  |  |  | 10 |
| AGGCG/CCTCG | 1 |  | 1 |  |  |  |  |  |  |  |  |  | 2 |
| AGGGC/CCCTG | 7 | 3 | 2 |  |  |  |  |  |  |  |  |  | 12 |
| AGGGG/CCCCT | 90 | 20 | 10 | 5 |  |  |  |  |  |  |  |  | 125 |
| ATATC/ATATG |  |  |  | 3 |  |  |  |  |  |  |  |  | 3 |
| ATCCC/ATGGG | 7 | 3 |  | 3 |  |  |  |  |  |  |  |  | 13 |
| ATGCC/ATGGC | 5 |  |  | 1 |  |  |  |  |  |  |  |  | 6 |
| CCCCG/CGGGG | 9 | 3 |  | 1 |  |  |  |  |  |  |  |  | 13 |
| CCCGG/CCGGG | 6 | 3 |  |  |  |  |  |  |  |  |  |  | 9 |
| AAAAAC/GTTTTT | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| AAAAAG/CTTTTT | 5 |  |  |  |  |  |  |  |  |  |  |  | 5 |
| AAAAAT/ATTTTT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AAAACC/GGTTTT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AAAACT/AGTTTT | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| AAAAGG/CCTTTT | 2 | 3 |  |  |  |  |  |  |  |  |  |  | 5 |
| AAAATC/ATTTTG | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| AAACAC/GTGTTT | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| AAACAG/CTGTTT | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| AAACCC/GGGTTT | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| AAAGAG/CTCTTT | 12 | 7 |  |  |  |  |  |  |  |  |  |  | 19 |
| AAAGAT/ATCTTT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AAAGGC/CCTTTG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AAAGGG/CCCTTT | 1 | 3 |  |  |  |  |  |  |  |  |  |  | 4 |
| AAAGTT/AACTTT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AAATAG/ATTTCT | 3 | 1 |  |  |  |  |  |  |  |  |  |  | 4 |
| AAATCC/ATTTGG | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| AAATCT/AGATTT | 8 | 4 |  | 1 |  |  |  |  |  |  |  |  | 13 |
| AAATGG/ATTTCC |  | 2 |  |  |  |  |  |  |  |  |  |  | 2 |
| AAATTC/AATTTG | 3 | 1 |  |  |  |  |  |  |  |  |  |  | 4 |
| AAATTT/AAATTT | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| AACACC/GGTGTT | 1 | 2 |  |  |  |  |  |  |  |  |  |  | 3 |
| AACAGG/CCTGTT | 3 |  | 1 |  |  |  |  |  |  |  |  |  | 4 |
| AACATC/ATGTTG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AACATG/ATGTTC | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| AACATT/AATGTT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AACCAC/GGTTGT |  | 2 |  |  |  |  |  |  |  |  |  |  | 2 |
| AACCAG/CTGGTT | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| AACCAT/ATGGTT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AACCCC/GGGGTT | 10 | 5 | 1 |  |  |  |  |  |  |  |  |  | 16 |
| AACCCG/CGGGTT | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| AACCCT/AGGGTT | 200 | 73 | 6 | 4 | 3 |  |  | 3 |  |  |  |  | 289 |
| AACCTG/AGGTTC | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AACCTT/AAGGTT | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| AACGAC/CGTTGT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AACTCC/AGTTGG | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| AACTCT/AGAGTT | 5 | 3 | 1 |  |  |  |  |  |  |  |  |  | 9 |
| AACTGG/AGTTCC |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AAGACC/CTTGGT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AAGACT/AGTCTT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AAGAGG/CCTCTT | 2 | 2 |  | 1 |  |  |  |  |  |  |  |  | 5 |
| AAGATG/ATCTTC | 2 | 2 |  |  |  |  |  |  |  |  |  |  | 4 |
| AAGCCT/AGGCTT | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| AAGGAG/CCTTCT | 6 | 6 |  |  |  |  |  |  |  |  |  |  | 12 |
| AAGGAT/ATCCTT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AAGGGC/CCCTTG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AAGGGG/CCCCTT | 6 | 4 |  |  |  |  |  |  |  |  |  |  | 10 |
| AAGGTG/ACCTTC | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| AAGTGG/ACTTCC |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AATAGT/ACTATT |  |  | 1 |  |  |  |  |  |  |  |  |  | 1 |
| AATCCC/ATTGGG |  | 1 | 2 |  |  |  |  |  |  |  |  |  | 3 |
| AATCCT/AGGATT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AATCTC/AGATTG |  | 2 |  |  |  |  |  |  |  |  |  |  | 2 |
| AATGAC/ATTGTC |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AATGAG/ATTCTC | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AATGGG/ATTCCC | 7 | 1 |  |  |  |  |  |  |  |  |  |  | 8 |
| AATGTC/ACATTG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AATTAG/AATTCT | 18 | 5 |  |  |  |  |  |  |  |  |  |  | 23 |
| AATTCC/AATTGG | 1 | 2 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACACAG/CTGTGT | 18 | 7 | 1 | 2 |  |  |  |  |  |  | 1 | 1 | 30 |
| ACACAT/ATGTGT | 6 | 2 |  |  |  |  |  |  |  |  |  |  | 8 |
| ACACCC/GGGTGT | 18 | 9 |  |  |  |  |  |  |  |  |  |  | 27 |
| ACACCG/CGGTGT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| ACACGC/CGTGTG | 8 | 2 |  |  |  |  |  |  |  |  |  |  | 10 |
| ACACGG/CCGTGT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACACTC/AGTGTG | 24 | 17 | 1 |  | 1 |  |  |  |  |  |  | 1 | 44 |
| ACACTG/AGTGTC | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| ACAGAG/CTCTGT | 47 | 25 | 1 | 1 |  |  | 1 |  |  |  |  | 1 | 76 |
| ACAGAT/ATCTGT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACAGCC/CTGTGG |  | 2 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACAGCG/CGCTGT |  |  | 1 |  |  |  |  |  |  |  |  |  | 1 |
| ACAGGC/CCTGTG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACAGGG/CCCTGT | 29 | 13 |  |  |  |  |  |  |  |  |  |  | 42 |
| ACAGGT/ACCTGT | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACAGTC/ACTGTG | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| ACAGTG/ACTGTC | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACATAG/ATGTCT | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACATAT/ATATGT | 2 | 1 | 1 |  |  |  |  |  |  |  |  |  | 4 |
| ACATCC/ATGTGG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACATGC/ATGTGC |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| ACATGG/ATGTCC | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACCACT/AGTGGT | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCAGC/CTGGTG | 1 | 2 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCAGG/CCTGGT | 2 | 4 |  |  |  |  |  |  |  |  |  |  | 6 |
| ACCATC/ATGGTG | 1 | 2 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCATG/ATGGTC | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACCCAG/CTGGGT | 7 | 8 |  |  |  |  |  |  |  |  |  |  | 15 |
| ACCCAT/ATGGGT |  | 3 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCCCC/GGGGGT | 46 | 14 | 1 |  |  |  |  | 1 |  |  |  |  | 62 |
| ACCCCG/CGGGGT | 5 | 7 |  |  |  |  |  |  |  |  |  |  | 12 |
| ACCCCT/AGGGGT | 5 | 1 | 1 |  |  |  |  |  |  |  |  |  | 7 |
| ACCCGG/CCGGGT | 3 | 2 |  |  |  |  |  |  |  |  |  |  | 5 |
| ACCCTC/AGGGTG | 21 | 14 |  |  |  |  |  |  |  |  |  |  | 35 |
| ACCCTG/AGGGTC | 17 | 7 | 2 |  |  |  |  |  |  |  |  |  | 26 |
| ACCGAG/CGGTCT | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCGCC/CGGTGG | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCGCG/CGCGGT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| ACCGGG/CCCGGT | 3 |  | 1 |  |  |  |  |  |  |  |  |  | 4 |
| ACCTCC/AGGTGG | 6 | 4 |  |  |  |  |  |  |  |  |  |  | 10 |
| ACCTCT/AGAGGT | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACCTGC/AGGTGC | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACCTGG/AGGTCC | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| ACGAGG/CCTCGT | 9 | 5 |  |  |  |  |  |  |  |  |  |  | 14 |
| ACGATG/ATCGTC | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACGCGC/CGCGTG | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACGCTC/AGCGTG |  | 3 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACGGAG/CCGTCT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| ACGGGC/CCCGTG | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACGGGG/CCCCGT | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACGTCC/ACGTGG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACTAGG/AGTCCT |  |  |  | 1 |  |  |  |  |  |  |  |  | 1 |
| ACTATG/AGTCAT |  | 2 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACTCCC/AGTGGG | 7 | 5 | 1 |  |  |  |  |  |  |  |  | 1 | 14 |
| ACTCCG/AGTCGG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| ACTCCT/AGGAGT | 1 | 1 |  |  |  |  |  |  |  |  |  |  | 2 |
| ACTCGC/AGTGCG | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| ACTCTC/AGAGTG | 39 | 22 | 3 | 1 | 1 | 1 |  |  | 1 |  |  |  | 68 |
| ACTCTG/AGAGTC | 4 | 2 |  |  |  |  |  |  |  |  |  |  | 6 |
| ACTGAG/AGTCTC |  | 3 |  |  |  |  |  |  |  |  |  |  | 3 |
| ACTGCC/AGTGGC | 1 | 3 | 1 |  |  |  |  |  |  |  |  |  | 5 |
| ACTGCT/AGCAGT |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| ACTGGG/AGTCCC | 6 | 1 |  |  |  |  |  |  |  |  |  |  | 7 |
| AGAGAT/ATCTCT | 15 | 6 | 2 |  |  |  |  |  |  |  |  |  | 23 |
| AGAGCC/CTCTGG | 5 | 3 |  |  |  |  |  |  |  |  |  |  | 8 |
| AGAGCG/CGCTCT | 28 | 7 |  |  |  |  |  |  |  |  |  |  | 35 |
| AGAGCT/AGCTCT | 3 |  |  |  |  |  |  |  |  |  |  |  | 3 |
| AGAGGC/CCTCTG | 2 | 4 |  |  |  |  |  |  |  |  |  |  | 6 |
| AGAGGG/CCCTCT | 93 | 54 | 6 | 1 | 1 | 1 |  |  |  |  |  |  | 156 |
| AGATAT/ATATCT | 2 | 4 |  |  |  |  |  |  |  |  |  |  | 6 |
| AGATCC/ATCTGG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AGATGG/ATCTCC | 6 | 6 |  |  |  |  |  |  |  |  |  |  | 12 |
| AGCAGG/CCTGCT | 5 | 5 |  |  |  |  |  |  |  |  |  |  | 10 |
| AGCATC/ATGCTG |  | 3 |  |  |  |  |  |  |  |  |  |  | 3 |
| AGCCCC/CTGGGG | 17 | 11 | 1 |  | 2 |  |  |  |  |  |  |  | 31 |
| AGCCCG/CGGGCT | 7 | 4 |  |  |  |  |  |  |  |  |  |  | 11 |
| AGCCCT/AGGGCT | 3 | 1 |  |  |  |  |  |  |  |  |  |  | 4 |
| AGCCGG/CCGGCT | 6 |  |  |  |  |  |  |  |  |  |  |  | 6 |
| AGCCTC/AGGCTG |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| AGCCTG/AGGCTC | 3 | 1 |  |  |  |  |  |  |  |  |  |  | 4 |
| AGCGGC/CCGCTG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |
| AGCGGG/CCCGCT | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| AGCTCC/AGCTGG | 4 | 2 |  |  |  |  |  |  |  |  |  |  | 6 |
| AGGATC/ATCCTG | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| AGGATG/ATCCTC | 7 | 3 |  |  |  |  |  |  |  |  |  |  | 10 |
| AGGCCC/CCTGGG | 15 | 6 | 1 |  |  |  |  |  |  |  |  |  | 22 |
| AGGCGG/CCGCCT | 1 | 1 | 1 |  |  |  |  |  |  |  |  |  | 3 |
| AGGGAT/ATCCCT | 4 | 2 |  |  |  |  |  |  |  |  |  |  | 6 |
| AGGGCC/CCCTGG | 3 | 2 | 1 |  |  |  |  |  |  |  |  |  | 6 |
| AGGGCG/CCCTCG | 9 | 4 |  |  |  |  |  |  |  |  |  |  | 13 |
| AGGGGC/CCCCTG | 4 | 2 | 1 |  |  |  |  |  |  |  |  |  | 7 |
| AGGGGG/CCCCCT | 29 | 3 |  |  |  |  |  |  |  |  |  |  | 32 |
| ATATCC/ATATGG | 2 | 1 |  |  |  |  |  |  |  |  |  |  | 3 |
| ATCCCC/ATGGGG | 25 | 13 |  |  |  |  |  |  |  |  |  |  | 38 |
| ATCCCG/ATCGGG | 2 | 4 |  |  |  |  |  |  |  |  |  |  | 6 |
| ATCGCC/ATGGCG |  |  | 1 |  |  |  |  |  |  |  |  |  | 1 |
| ATGCCC/ATGGGC |  | 1 |  |  |  |  |  |  |  |  |  |  | 1 |
| CCCCCG/CGGGGG | 2 |  |  |  |  |  |  |  |  |  |  |  | 2 |
| CCCCGG/CCGGGG | 10 | 3 |  |  |  |  |  |  |  |  |  |  | 13 |
| CCCGGG/CCCGGG | 1 |  |  |  |  |  |  |  |  |  |  |  | 1 |