**Table S1: List of primers used for screening for accessory chromosomes in *Z. tritici* and *Z. ardabiliae*.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Primer name** | **Sequence (5’ to 3’)** | **Coordinates** | **Expected PCR product length (bp)** |
| **Telomere L** |  |  |  |
| oES2084\_Tel**14**L\_F | TCGACCGAGGGTCAGAGATT | 52785.. 52804 | 150 |
| oES2085\_Tel**14**L\_R | GTGCGAACCGACATCCACTA | 52934.. 52915 |
| oES2088\_Tel**15**L\_F | AGACGAAGGCACCACCAGAT | 29301.. 29320 | 253 |
| oES2089\_Tel**15**L\_R | GTGCATCCTCATCCCCCTTA | 29553.. 29534 |
| oES2092\_Tel**16**L\_F | TCGGAAACACCGGTCTAAGC | 25143.. 25162 | 344 |
| oES2093\_Tel**16**L\_R | ATAGAGGCGGTCGACGAGAA | 25486.. 25467 |
| oES2096\_Tel**17**L\_F | GGCTTCTGCCATCAGAGCTT | 88346.. 88365 | 451 |
| oES2097\_Tel**17**L\_R | CAACTTCCTCCGCTTTGCTC | 88796.. 88777 |
| oES2100\_Tel**18**L\_F | GTTTTCTCCCTGCACCTTGC | 14259.. 14278 | 540 |
| oES2101\_Tel**18**L\_R | TATGGCACCTCCGAACAATG | 14798.. 14779 |
| oES2104\_Tel**19**L\_F | CAAGACGGCTCCCTTTCATC | 19008.. 19027 | 652 |
| oES2105\_Tel**19**L\_R | AGGAGGAACCATCGAAGCAG | 19659.. 19640 |
| oES2108\_Tel**20**L\_F | CGGTTCAGATCAGGTGCAAA | 6803.. 6822 | 743 |
| oES2109\_Tel**20**L\_R | CGTGGAAGAGCATCGACAAG | 7545.. 7526 |
| oES2112\_Tel**21**L\_F | GTCCAGCCATCGATTTTCGT | 46192.. 46211 | 849 |
| oES2113\_Tel**21**L\_R | GTCGGGATATGTGCGAGTGA | 47040.. 47021 |
| **Telomere R** |  |  |  |
| oES2086\_Tel**14**R\_F | CTCCGCTTTGCTTTCCGTAG | 722989..723008 | 896 |
| oES2087\_Tel**14**R\_R | GTCCGCAAGTGACAAATCCA | 723884..723865 |
| oES2090\_Tel**15**R\_F | CTACCGCTCGGTTCCAAAAG | 581237..581256 | 799 |
| oES2091\_Tel**15**R\_R | TTGGGAAACTGTCCTGACCA | 582035..582016 |
| oES2094\_Tel**16**R\_F | CCAGATTTGGGAATGGGTGT | 587178..587197 | 704 |
| oES2095\_Tel**16**R\_R | GCTGACGAACTGCTCGAAGA | 587881..587862 |
| oES2098\_Tel**17**R\_F | AGGTGGTGGATTCGGGATTA | 554580..554599 | 601 |
| oES2099\_Tel**17**R\_R | CTGCATGCTCTCGATTACGC | 555180..555161 |
| oES2102\_Tel**18**R\_F | GAGAATGTGGTCGCGGAGAT | 521319..521338 | 500 |
| oES2103\_Tel**18**R\_R | GAGCCCTTCACCAACACACA | 521818..521799 |
| oES2106\_Tel**19**R\_F | ACATCCTCCACTCGGCTTGT | 531276..531295 | 398 |
| oES2107\_Tel**19**R\_R | AGCTACGACGCCATCACCTT | 531673..531654 |
| oES2110\_Tel**20**R\_F | GGCACCAACTGCACATGATT | 437575..437594 | 292 |
| oES2111\_Tel**20**R\_R | ACATGCGAGCTGGATCTGAA | 437866..437847 |
| oES2114\_Tel**21**R\_F | TTGCAGCTCTTGGAGCGATA | 379214..379233 | 202 |
| oES2115\_Tel**21**R\_R | CCCAGTCGTAATGGGAAGGA | 379415..379396 |
| **Centromere** |  |  |  |
| oES1986\_Chr**21**\_F | CCTCGCCACCATGTTATACC | 306266..306285 | 294 |
| oES1987\_Chr**21**\_R | CGCACCTACAGTCCGAAATC | 306559..306540 |
| oES1988\_Chr**20**\_F | ATGCGAATTGGAGCAGCTAC | 118378..118397 | 500 |
| oES1989\_Chr**20**\_R | ATCGACGGTGTGCATCTTAC | 118877..118858 |
| oES2002\_Chr**19**\_F | ACATGGCATCCTGGATTGTC | 200830..200849 | 697 |
| oES2003\_Chr**19**\_R | ACGAGCTTCTGTTTCCACTG | 201526..201507 |
| oES1992\_Chr**18**\_F | CCTTCATGCCGGTGCTTTAC | 188047..188066 | 908 |
| oES1993\_Chr**18**\_R | GATGCCATCGGTCCATAGTG | 188954..188935 |
| oES1994\_Chr**17**\_F | CACGAGCGACAAGGACTATC | 385216..385235 | 1204 |
| oES1995\_Chr**17**\_R | AGTGCCCGAGTTTCAACATC | 386419..386400 |
| oES1996\_Chr**16**\_F | TGCACTAACGCCTCAACTAC | 300338..300357 | 1501 |
| oES1997\_Chr**16**\_R | TGGCTCTTTGCACTCAAGAC | 301838..301819 |
| oES1998\_Chr**15**\_F | TTCGAATGCCGGTCATACAC | 357359..357378 | 1991 |
| oES1999\_Chr**15**\_R | GCAAACCACGAAGCTTTCTC | 359349..359330 |
| oES2000\_Chr**14**\_F | AAGTGGAAGCGCCCATAATC | 106407..106426 | 2520 |
| oES2001\_Chr**14**\_R | GACCTCACTTCGCCACATAG | 108926..108907 |
| **Za17** |  |  |  |
| oES2399\_unitig**24**\_F | TCGGACTAGGAGACCGAATG | 233390..233409 | 94 |
| oES2400\_unitig**24**\_R | TTTGCGAAGACGCCAGAAAC | 233483..233464 |
| oES2401\_unitig**27**\_F | CGTAGCGGTAGGAGTATTCG | 265475..265494 | 159 |
| oES2402\_unitig**27**\_R | CGGCTACTTACTAGGCCTTC | 265633..265614 |
| oES2403\_unitig**49**\_F | GATGCTGACCGGTATCATGG | 300139..300158 | 269 |
| oES2404\_unitig**49**\_R | CAGCAACAGGTGCATTAGTG | 300407..300388 |
| oES2405\_unitig**51**\_F | AACTTCGTCCACAGTCCTAC | 71090..71109 | 350 |
| oES2406\_unitig**51**\_R | GAAGCTACATCGGGTGATTC | 71439..71420 |
| oES2407\_unitig**99**\_F | TGTGAACCCGCAATGATCCC | 137946..137965 | 420 |
| oES2408\_unitig**99**\_R | GGCGTTGAGCAGACCTGTAG | 138365..138346 |
| oES2409\_unitig**112**\_F | ACCTCGCGTGAAGATGTAAG | 89655..89674 | 491 |
| oES2410\_unitig**112**\_R | CTGCGCCAGAGTTGAAAGTC | 90145..90126 |
| **Probes for Southern analyses** |  |  |  |
| oES3018\_Chr**17**\_F | GACGGGATCTATGCTACAGG | 210784..210803 | 1515 |
| oES3019\_Chr**17**\_R | ACCGCACCGTTGGCTATTTG | 212298..212279 |
| oES3020\_Chr**21**\_F | GCTTCTTCCCAGCATCTGAC | 276789..276808 | 1597 |
| oES3021\_Chr**21**\_R | CGGAAGCACAGGCAATATCG | 278385..278366 |
| oES3022\_Chr**12**\_F | TAGACCCGGTCTGGAGAATC | 804683..804702 | 1519 |
| oES3023\_Chr**12**\_R | TCGACTTCGGGTGACTTGAG | 806201..806182 |