

Supplementary Table S2. List of CAPs marker within the target region of *qTV9*

| Marker name | Polymorphism* | Position (bp)** | TM. (°C) | Restrict enzyme | Incubation TM. | Target site | F                        | R                         |
|-------------|---------------|-----------------|----------|-----------------|----------------|-------------|--------------------------|---------------------------|
| CTV9_1      | X             | 21160068        | 58       | Hpy188I         | 37             | TCNGA       | GAGTCTAGTGTACACCGCTGG    | TCGTTTCGCTTAGTTCAG        |
| CTV9_2      | O             | 21192039        | 50       | EcoRV           | 37             | GATATC      | TTTAATCCTTAATAGGGATAT    | GCCCATCTGGAATTTGTCATGG    |
| CTV9_3      | O             | 21196113        | 50       | SpeI            | 37             | ACTAGT      | TGCATCAAATGTGGAGCGAC     | GAAATCAAGTCTGACTA         |
| CTV9_4      | X             | 21197336        | 58       | EcoRII          | 37             | CCWGG       | CCCCCGACTATAGCTCGAACC    | GTGGAAGGAGTCGGAGTTGG      |
| CTV9_5      | X             | 21205423        | 50       | ApaLI           | 37             | GTGCAC      | TGACTCAACAAGTG           | AACGCGTGAAGGATGTTTGC      |
| CTV9_6      | O             | 21206559        | 50       | RsaI            | 37             | GTAC        | TCTGCAGAACTCTAGTA        | ACTTTCGTTGATGGACCGAA      |
| CTV9_7      | X             | 21211307        | 58       | SpeI            | 37             | ACTAGT      | GGAGTTTGGAAGGAGCAATGCACT | AGCCAGAGACCCCTATGAG       |
| CTV9_8      | X             | 21223863        | 58       | MseI            | 37             | TTAA        | CAGAAGAGGTGAGAAGGCCG     | TGTATAAAAGTTTGTATAAGATT   |
| CTV9_9      | O             | 21248273        | 58       | RsaI            | 37             | GTAC        | GGGGAAGGGTCTAGAAGGGT     | TGTTCTCTTATGTTAAAAGGTCGG  |
| CTV9_10     | X             | 21255230        | 50       | Hinfi           | 37             | GANTC       | ATCTTTTAAGATTGTGAGTAGAA  | GTGGCTTGGA CTGATATCTGGT   |
| CTV9_11     | X             | 21273493        | 58       | Hpy188I         | 37             | TCNGA       | AATGGAAGGTTGTCTCGG       | GGCCAGCAGTAAGCCAAGTA      |
| CTV9_12     | X             | 21281014        | 50       | MseI            | 37             | TTAA        | AAGGTTGAAAATTTAAATTTA    | GTCTCGCTCTCTGGCTTGTT      |
| CTV9_13     | O             | 21282422        | 58       | Hinfi           | 37             | GANTC       | TGGAACGATGTGACGGAAGAGT   | CACCGGTCCATTTTCATTTCTGA   |
| CTV9_14     | X             | 21285122        | 58       | SpeI            | 37             | ACTAGT      | AATTAAGACCTCCAGTAAC      | CTCCCAGTCCCAGCAAAGAG      |
| CTV9_15     | X             | 21286885        | 58,50    | MseI            | 37             | CTAG        | TGTGTAAGAAAGTTTA         | AGCCTGGCGAGTTAGGATTT      |
| CTV9_16     | X             | 21287524        | 58,50    | MseI            | 37             | TTAA        | TACAACTTTCAATTTTTA       | GGAAGGAGTATCATACTAGTACGGG |

\* indicate the presence of qTV9 (O: positive, X: negative qTV9)

\*\* is physical position on chromosome 9