**Table S2** Polymorphic KASP markers for powdery mildew resistance used in this study

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **QTL** | **KASP Marker** | **Physical Position (Mb)a** | **Primer Nameb** | **Sequence (5’to 3’) c** |
| *QPMR.caas-2AS* | *Kasp\_PMR\_2AS* | 105.1 | *Kasp\_2AS\_PMRA* | **GAAGGTGACCAAGTTCATGCT**TTGAATGCTGTCGAGCTACTAT |
|  |  |  | *Kasp\_2AS\_PMRB* | **GAAGGTCGGAGTCAACGGATT**TTGAATGCTGTCGAGCTACTAC |
|  |  |  | *Kasp\_2AS\_PMRC* | TGCGGTTTCTTCCCAGTTCA |
| *QPMR.caas-6BS* | *Kasp\_PMR\_6BS* | 77.4 | *Kasp\_6BS\_PMRA* | **GAAGGTGACCAAGTTCATGCT**ttggGttagatgaCacagcacaT |
|  |  |  | *Kasp\_6BS\_PMRB* | **GAAGGTCGGAGTCAACGGATT**ttggGttagatgaCacagcacaG |
|  |  |  | *Kasp\_6BS\_PMRC* | aagatacattCcttctctcaccaaT |

a Physical position (Mb) of the markers were obtained by blasting SNP flanking sequences against the Chinese Spring RefSeq v1.0 sequence (https://urgi.versailles.inra.fr/blast\_iwgsc/)

b A and B indicated allele specific primer, C indicated the common reverse primer

c FAM and HEX tails used for KASP marker assays were indicated in bold