



Fig. S7 Co-segregation analysis of CAPS1 marker (A), 1-3 represent B73 (177 bp), *mn2-m1* (134 bp) and B73 \times *mn2-m1* (177 and 134 bp), respectively. 4-24 represent the normal plants of BC₁ segregation population from B73/*mn2-m1*. (B), 1-3 represent B73 (177 bp), *mn2-m1* (134 bp) and B73 \times *mn2-m1* (177 and 134 bp), respectively. 4-24 represent the recessive *mn2-m1* plants of BC₁ segregation population from B73/*mn2-m1*. CAPS1 marker (F: 5'-CCTACTCGCAGATGTCGTCG-3'; R: 5'-AGCCTCTGCTGCTCCACCA-3') was developed for co-segregation analysis based on the SNP (G/-) in the coding region of *Zm00001d019294*. The amplified products of B73 (262 bp), *mn2-m1* (261 bp) and B73 \times *mn2-m1* (262 and 261 bp) were digested with restriction enzyme *BtgI* for 5 hours at 37 °C, which generated 4 (177, 43, 36 and 6 bp), 5 (134, 43, 42, 36 and 6 bp) and 6 (177, 134, 43, 42, 36 and 6 bp) different sizes of fragments, respectively, and then the enzyme-digested products were run on 4% agarose for 50 minutes at 130 V.