

**Supporting Information Table S4 Markers used for map-based cloning of *mn2-m1***

<b>BAC accession number</b>	<b>Marker</b>	<b>Marker number<sup>a</sup></b>	<b>Primer sequence (5'-3')</b>	<b>Physical position (bp)</b>	<b>Product size (bp)</b>
AC208337.5	umc1066 <sup>b</sup>	P1	F: AGCAGCAGCAACGTCTATGACACT R: ATGGAGCACGTCATCTCAATGG	11075651-11075794	143
AC195922.4	992 <sup>c</sup>	P3	F: CGGGACCTGATTGCTCGTAG R: TCGCTCCTCTAGGCTCTCTC	13824683-13824892	209
AC216892.4	1029 <sup>c</sup>	P4	F: CAATCAAACGCCGTGATCCC R: AGCATTTTGACCTCTTGCGA	14732666-14732818	152
AC207204.4	1153 <sup>c</sup>	P5	F: CCTGGCTTGACTCAAATCTGC R: CTGGCATAACTTGTCGGGGT	16823929-16824123	194
AC203054.5	1232 <sup>c</sup>	P10	F: GCTTGGCTGGAGCACTTTTT R: ACCCTTTTTCATGTCCATGTTGC	18422707-18422923	216
AC205008.5	1426 <sup>c</sup>	P11	F: CATGCTGCTGCTCAGGGAC R: CCATGGCAGTCCTTACCCTG	22698588-22698803	215
AC208635.4	1525 <sup>c</sup>	P12	F: TGAAGCCTCAACGCAGACAT R: CGCAGCCCTATCTTCGTCAT	24741196-24741361	165
AC219055.4	1538 <sup>c</sup>	P13	F: GTGCTCGATCGCCTCTGTAA R: AAAGCTTGGTGGAGAGACCG	25228666-25228891	225
AC219055.4	1540 <sup>c</sup>	P14	F:CGCGTACGAAAATGCACACT R:TGCCCATATACTCCACGGGA	25302228-25302391	163
AC188832.6	1557 <sup>c</sup>	P15	F: AATGACCCACGATCGTACCG R:AGAGTCCATTAGCATCCCTACCT	25936995-25937168	173
AC194902.4	23 <sup>d</sup>	P19	F: CGAGAGAAAGGGCTGCG R: CATATGGAATGGTATTAAGCACG	26216888-26217144	256

AC213980.3	45 <sup>d</sup>	P20	F: GCAGGATGGCAATTTAGTG R: TATTTTCGTGGTGTATGTTTC	26426585-26426786	201
AC202113.5	57 <sup>d</sup>	P21	F: CCACGCAGTAGGGCTTCATA R: AATTTTCGGCAGAGGGTTCTC	26659258-26659473	215
AC212578.4	1575 <sup>c</sup>	P16	F:CTAGGTTTGTTCGCGGCAAG R: CATGCATGTCCCCCTTTGT	26903541-26903724	183
AC190954.4	1607 <sup>c</sup>	P17	F: GCACAACCTGATTCTCCCA R: ATAGGACGAGCCGACCAAC	27273852-27274065	213
AC202083.3	1648 <sup>c</sup>	P18	F: TATGTTGTACGGGTGCTGCT R: CGGTCCGGACTCTTCTCTTT	27946097-27946285	188
AC204361.4	1677 <sup>c</sup>	P6	F: ACAGGCGACTAAACCTTCGG R: TGTGAAGTCACCTGGGCTG	28606159-28606349	190
AC202063.4	1717 <sup>c</sup>	P7	F: GAGCACACACCTGCCAAAT R: CCACCAGTAGTCCTGCTGTG	29510995-29511207	212
AC218149.4	1746 <sup>c</sup>	P8	F: TTCACCCGGACGGTTAGTTG R: ACCACGCAGTTCTCCTAGTT	30362128-30362260	132
AC200661.5	1933 <sup>c</sup>	P9	F: CGTTAGATATGATGCCAGCAAGT R: ACCCATGAGTGTTTCGACGT	35260523-35260732	209
AC204952.4	bnlg1094 <sup>b</sup>	P2	F: CAGCAACGCTCTCACATTGT R: GTGAAGAACGATGACGCAGA	39161032-39161208	176

F and R represent forward and reverse primers, respectively. <sup>a</sup> Marker number used in map-based cloning of *mn2-m1* in this study, <sup>b</sup> SSR markers were obtained from the 188 SSR markers downloaded from maizeGDB database (Supplementary Table S1), <sup>c</sup> SSR markers came from the selected 81 SSR markers from previous studies (Xu et al., 2013) (Supplementary Table S2), <sup>d</sup> SSR markers were newly developed by us (Supplementary Table S3).