

CHuangzaosi	TTGTCAGTGTGTGCGGTGTATGGCAGGTTTTTGGTTCGGCAAGTGGGGCCCTCCGGGGAGGAATCTCAGTAACAAACCGCTCTTCTGAAAAGGTGACGCCA	100
A619	TTGTCAGTGTGTGCGGTGTATGGCAGGTTTTTGGTTCGGCAAGTGGGGCCCTCCGGGGAGGAATCTCAGTAACAAACCGCTCTTCTGAAAAGGTGACGCCA	100
Consensus	ttgtcagtggtgCGGTgtatggcaggtttttggttcgGCCaagtggggccctccggggaggaatctcagtaacaaacCGctcttctgaaaaggTcagGCCa	
CHuangzaosi	TCGCCGGTCCGGTCCGGTGTATGTCGTGCTGTGCTGTCTGTAGCTTTGCTGCCGATCC	200
A619	TCGCCGGTCCGGTCCGGTGTATGTCGTGCTGTGCTGTCTGTAGCTTTGCTGCCGATCC	200
Consensus	tccccggTccggTccggTgatgtcgTcgTgtcgTctgtagctTgctgccgATcc c ccccc c cccctttcttctcttacccttccctccacCTca	
CHuangzaosi	TAAATACCTTAGTTTAAATAACCTTGCACTGCCGCGAGTAGCCCTTAACCTGCTGG...TATCTATCTCTTTTCTGAAGGAAAAAAGGTTTGTATCTCTC	296
A619	TAAATACCTTAGTTTAAATAACCTTGCACTGCCGCGAGTAGCCCTTAACCTGCTGGTATCTATCTCTTTTCTGAAGGAAAAAAGGTTTGTATCTCTC	300
Consensus	taaatacttagtttaataaaccttgcactgccgCGagtagcccttaactgctgc tatctatctcttttctgaaggaaaaaaaggTttgtatactctctc	
CHuangzaosi	TACCTAGCTAGTCTGCAATGCCGCTAATGTCGCTTGCCTGTTTATTGTTCTTAATAAGGGCTGCCTATCTATTATATTTTGCACCTGTTTGTCTG	396
A619	TACCTAGCTAGTCTGCAATGCCGCTAATGTCGCTTGCCTGTTTATTGTTCTTAATAAGGGCTGCCTATCTATTATATTTTGCACCTGTTTGTCTG	400
Consensus	ta ctagc agtctctgcatgccgctAatgt cgtcttgccTgtttattgttcttaataagggctgcctatctattatattttgcacctgTtttgctg g	
CHuangzaosi	TTCTTGGTAACTAGCTTAATTCCTTGGCTACAATCGTCAAAATCCCCCCCATCATCAGTCAATGAACCTTTTGATCGAAATGAAGTTGTTCTTAATTC	496
A619	TTCTTGGTAACTAGCTTAATTCCTTGGCTACAATCGTCAAAATCCCCCCCATCATCAGTCAATGAACCTTTTGATCGAAATGAAGTTGTTCTTAATTC	500
Consensus	ttcttggttaactagcttaattctctt gctacaactgcAaatcccccccatcatcagTca atgaacttttgatcgaaTgaagTgtctctctaatttc	
CHuangzaosi	GGCCCCAGCAGCGCCCATGCACTCGGTTTTTATTGCTTTCTGTTGGGTATAAATATGCAAGACCTTTTGTGCTAGGGCAAGGCTGCAACCATCATGCGTGT	596
A619	GGCCCCAGCAGCGCCCATGCACTCGGTTTTTATTGCTTTCTGTTGGGTATAAATATGCAAGACCTTTTGTGCTAGGGCAAGGCTGCAACCATCATGCGTGT	600
Consensus	ggccccagcagcgcccatgcatctggTTTTatttgctttctgTtgggtataaatatgcaagaccttttTgtctagggcaaggctgcaaccacatgctgTgt	
CHuangzaosi	ACTGAACCTCATGATGTAACTCATCTTTTTGTTTGTCTACAGAATCACTACTCTACTGCACTTCCTTTTCATCCGATCCGCAATCTTTTTTTCCTTTTAC	696
A619	ACTGAACCTCATGATGTAACTCATCTTTTTGTTTGTCTACAGAATCACTACTCTACTGCACTTCCTTTTCATCCGATCCGCAATCTTTTTTTCCTTTTAC	700
Consensus	actgaactcatgatgttaactcatctttttgtTgtctacagaatcactactctactgcacttctctttcatccgatccgcaatctttttttttctttac	
CHuangzaosi	ATGCTTTAGTTTTCCTCTCTTTCTTGATTACAACATGATTACTGGAACCTTCTTAGGCTGCCTTCCCTTCTTGGATCTGCTTTAGTTTTCCTTTTGG	796
A619	ATGCTTTAGTTTTCCTCTCTTTCTTGATTACAACATGATTACTGGAACCTTCTTAGGCTGCCTTCCCTTCTTGGATCTGCTTTAGTTTTCCTTTTGG	800
Consensus	atgcttttagttttctctctttcttgattacaacatgattactggaactttcttaggctgccttcccttctcttggtatctgctttagttttctctttt gg	
CHuangzaosi	GCTACCGCGCGCGGCTTATTGAGTTTATCACTTGTGCAATATACATAAATATATATACATGATGCGATGGCGTTCACTGTTACTCAACTACAGATCTG	896
A619	GCTACCGCGCGCGGCTTATTGAGTTTATCACTTGTGCAATATACATAAATATATATACATGATGCGATGGCGTTCACTGTTACTCAACTACAGATCTG	900
Consensus	gctacCGcgCGcggttatttgagTttatcactTgtcgatatacataaatatatatatatacatgcatgCGatggcgtTcatgttactccaactacagatctg	
CHuangzaosi	TTTCTGTTCTGTTGTTTTCAGTTTCAGCGCGCAGTTAAGCATAGCAGGACGACACGACGATATATACCCCGCAGTGCAGAGCTCCTGACGATGGCGCACGAA	996
A619	TTTCTGTTCTGTTGTTTTCAGTTTCAGCGCGCAGTTAAGCATAGCAGGACGACACGACGATATATACCCCGCAGTGCAGAGCTCCTGACGATGGCGCACGAA	1000
Consensus	tttctgTtctgTgttttcagTtTCagcgCGcagTtaagcatagcagggacgaccacgacgat tatcaccCGcagTgcgagctcctgacgTgTggcgacgaa	
CHuangzaosi	ACGCGGGACCTGGACCGCGCGCAGCGCACCTAACCGCTTCGCGCGCTGCGCAGCATCCGCGCAGAGCTGAGCTTCCACCTGCTGCATCTGCTGCAGCGCG	1096
A619	ACGCGGGACCTGGACCGCGCGCAGCGCACCTAACCGCTTCGCGCGCTGCGCAGCATCCGCGCAGAGCTGAGCTTCCACCTGCTGCATCTGCTGCAGCGCG	1100
Consensus	acgCGggaactTgaacgCGcgCGcagCGcagcttaacCGcttccggcgTgcCGagcatccCGcgagagctgagTtccactgctgcactcgctcgagCGcg	
CHuangzaosi	CGCGCGCGGTCATCCCGTTCACGCGCGCGCGCGCAGTCCACCATCGACTACTTCTCTCGCGCGCGCGATCCCCACGACGAGGCCATCGAGTACGAGCGCGT	1196
A619	CGCGCGCGGTCATCCCGTTCACGCGCGCGCGCGCAGTCCACCATCGACTACTTCTCTCGCGCGCGCGATCCCCACGACGAGGCCATCGAGTACGAGCGCGT	1200
Consensus	cggCGcggtTcaatccCGtcaCGcgCGcgCGcagTccacCATcgactacttctctcgCGcgCGcagTccccacCGcagggcTatcgatcagTcgagCGcgT	
CHuangzaosi	GGCGCGCGCGCGCGCGCGCGCACACAGTACACCATGGACATGTTCCGCGACTACTGCGCAGCGGACTACCCCGCAGCGCGGACCTGACCTCCGCGCGCAC	1296
A619	GGCGCGCGCGCGCGCGCGCGCACACAGTACACCATGGACATGTTCCGCGACTACTGCGCAGCGGACTACCCCGCAGCGCGGACCTGACCTCCGCGCGCAC	1300
Consensus	gcCGcgCGcgCGcgCGcgCGcacaCGatcacCATggacTgttccgCGactactgcgacgCG actacccccacCGcgagCGcTatcctcgCGcggaca	
CHuangzaosi	ATGACTGGAGCCCTCTGCTGTTGCGGCGCACCGCAGCAGCACTCGCGCGCTGCTCATACATGCCCGCGGCGCACTTTGAGACCTCCCGCGCGCGCACGCG	1396
A619	ATGACTGGAGCCCTCTGCTGTTGCGGCGCACCGCAGCAGCACTCGCGCGCTGCTCATACATGCCCGCGGCGCACTTTGAGACCTCCCGCGCGCGCACGCG	1400
Consensus	atgactggagccctctgTtTcggggCcacCGcagcagcagcagTcgCGcgctgcctacatgcCGcgggggcaattTgagactcccccgCGcgCGcagcg	
CHuangzaosi	CCACCGCGCGCGCGCAGGAAGCGCGCGCAGCGCGCTGCGCGCGCGGTTCCATGCTGCTGCTGGCCAGCGCGCTCGAGAAGGAGAGCAGCGCGCGCTGC	1496
A619	CCACCGCGCGCGCGCAGGAAGCGCGCGCAGCGCGCTGCGCGCGCGGTTCCATGCTGCTGCTGGCCAGCGCGCTCGAGAAGGAGAGCAGCGCGCGCTGC	1499
Consensus	ccacCGcgCGcgCGcaggaagCGggcgCGggcgTggcgCGcgCGcttccatg ctgTgctggCcaacggcgTcgagaagaaggagagcagcgCGcgCGctgc	
CHuangzaosi	GGCTCACCGAGAAGTACAGCGGCTCATGCACTCATACCCAACTTACAAAGTCTGAT.....CAAACTCTCTCTTATGTTGG	1577
A619	GGCTCACCGAGAAGTACAGCGGCTCATGCACTCATACCCAACTTACAAAGTCTGAT.....CAAACTCTCTCTTATGTTGG	1599
Consensus	ggctcacCGagaagt ac gccctcatgcaacctatacccaagcttac aaggtctgac caaatctctctcttatgttgc	
CHuangzaosi	TG...CATGCTTTCAAATAGTTAAAAAATTAATTACGGTT...TTGTTGTTTATTTTTGCGCACTGCAGACTGATAGGGCGAGCGTGATCTCGGA	1671
A619	TGTTGCTATGTTTCAAAT...AATTACGGTTTGTGTTGTTTATTTTTGCGCACTGCAGACTGATAGGGCGAGCGTGATCTCGGA	1686
Consensus	tc catcgt tcaaat aattcacgTtctg ttgtgtttatttttgcgactgcagactgataggcgagcggtgatctcgga	
CHuangzaosi	CGCGATCGAGTACATCCAGGAGCTGGGGAGGACGCTGGAGAGCTGACGCTGCTGTTGGAGAAGAAGCGCGCGCGAGGAGCTGACGGGGAGCTGCTG	1771
A619	CGCGATCGAGTACATCCAGGAGCTGGGGAGGACGCTGGAGAGCTGACGCTGCTGTTGGAGAAGAAGCGCGCGCGAGGAGCTGACGGGGAGCTGCTG	1786
Consensus	cgcgatcgagTacatccaggagctgggaggaCGgtggagagctgcagctgctgTgtggagaagaagCGcgCGcgaggagagctgcaggggagcTgctgTg	
CHuangzaosi	GACGCGCGCGCGCGCTGCGGTGTTGCTGCGCGCGCTGAGCGCGGAGAGCTCGGAGGGCGAGGTGCTCTCCGCGCGCGCGCGTGCCTGCGCGCGCGGATCC	1871
A619	GACGCGCGCGCGCGCTGCGGTGTTGCTGCGCGCGCTGAGCGCGGAGAGCTCGGAGGGCGAGGTGCTCTCCGCGCGCGCGCGTGCCTGCGCGCGCGGATCC	1886
Consensus	gacgCGcgCGcgctgcgTgTgtgTgTgcTgcCGcgCGTgagcgCGagagctcggagggcgaggtggctctctcgCGcgCGcgctgcCGcgCGcagcgatcc	
CHuangzaosi	GAGCAGCTGATCATCCAGCGCGGAGCAGGAGCAGCTCCGCTGGACGTGCGGATGTGGAGGAGGACGTGACATCAAGCTCACCAAGCGCGCGCGCGAGCG	1971
A619	GAGCAGCTGATCATCCAGCGCGGAGCAGGAGCAGCTCCGCTGGACGTGCGGATGTGGAGGAGGACGTGACATCAAGCTCACCAAGCGCGCGCGCGAGCG	1986
Consensus	g agcagctacatccagcgCGgagcaggaagcagctccgtggacgtgcggat gTggagaggaCGtgaacataagctcaccaagCGcgCGcgCGcagcg	
CHuangzaosi	GTGCTTCGCGAGCGCGTTCGCGCGCGCTGGAAGCTTCGCGCTTGAACCTCTCCGCGCGCAAGATCGGTGACTGTCAAATCTACATGTTCAAC	2071
A619	GTGCTTCGCGAGCGCGTTCGCGCGCGCTGGAAGCTTCGCGCTTGAACCTCTCCGCGCGCAAGATCGGTGACTGTCAAATCTACATGTTCAAC	2086
Consensus	gtgcctcgagcgcgTgcgcgcgcgctgga gacctccgcttgacctctgcacctctccggcggaagatcggtgactgtcaaatctacatgttcaac	
CHuangzaosi	ACCAAGGTACATACGAATACGATAGTGAACATTGATCGATCTGTAATCTGTAGCCTGACGATT.....CCGAGGTTTCT.....	2147
A619	ACCAAGGTACATACGAATACGATAGTGAACATTGATCGATCTGTAATCTGTAGCCTGACGATTTCATGCATTACTTTCCGAGGTTTCTTGCTATAC	2186
Consensus	accaaggtacatacgaatacagata gta ccattgatcgatctgtaattctgtagcctgacgatt ccgaggtttct	
CHuangzaosi	.....GGTGCTAAAAAATGCATCTTTTTTCTCAGATGCAATGCTTCTGCTCTTTGTTACCGCAGATTACAAAGGGGTCTTCAGTGTTTGC	2235
A619	TACCTAATCTGGTGTCTAAAAAATGCATCTTTTTTCTCAGATGCAATGCTTCTGCTCTTTGTTACCGCAGATTACAAAGGGGTCTTCAGTGTTTGC	2286
Consensus	ggtgctaaaaaatgcattcttttttc tcagatgcaaatgcttctgtctttgttcacCGcagattcacaaaggggtcttcagTgtttgc	
CHuangzaosi	GAGTGCAGTGGCGGTAGGCTGATGGAAGTGGTGGACGAGTACTAGGCTACCATGCACCTTGAATTTCTAGCTAGCTCTAC...GTACCGCGCTGCTATGAA	2333
A619	GAGTGCAGTGGCGGTAGGCTGATGGAAGTGGTGGACGAGTACTAGGCTACCATGCACCTTGAATTTCTAGCTAGCTCTACGTACCGCGCTGCTATGAA	2386
Consensus	gagTgcagTggCGgttagcTgatggagTggTggacgagTactaggtccacctgcactTgaattcttagttagctctac gtacCGcgctgctatgaa	
CHuangzaosi	CTAGCTATAGCGTTTCTTGGATGAAG...ACTAGTTAGTTGTTACCTTCTATCTTTGCTTCAATTAATCCGCTTGTCTGTTACAGACTGAGTTTGT	2430
A619	CTAGCTATAGCGTTTCTTGGATGAAGACTAGTTAGTTGTTACCTTCTATCTTTGCTTCAATTAATCCGCTTGTCTGTTACAGACTGAGTTTGT	2486
Consensus	tctagctatagcTttcttggatgaag actagttagTgttacctctctatctttgtcttcaattaaatccgctTgtcgtgttacagactgagtttgtt	
CHuangzaosi	CTAAATGTCAAGGTTGTTTGGTCAAAATGAATAAATGGCACACTGGCCTGTGAGGTTATTATATATA	2500
A619	CTAAATGTCAAGGTTGTTTGGTCAAAATGAATAAATGGCACACTGGCCTGTGAGGTTATTATATATA	2556
Consensus	tctaaatgtcaaggTgttttggTcaaatgaataaattggcacactggcctgtgaggttattatatata	

Figure S1 Sequence alignment of GRMZM2G021276 between CHuangzaosi and A619