

>*Triticum aestivum* cultivar Chinese *WheatPME1-A* gene

ATGAGTAAAGGTGCGATCATCGGCGCGTTCGACCGTCCTGGTGGTGGCGGT
CGTCGCCCGCGTGTGCGTCTCCTTCAAGGGCAACGGCGGCGACAAGG
GCGATGGGGAGCTCACCACCTCCGTCAAGTCCGTCAAGGCCTTCTGCCAG
CCCATGGACTACAAGGAGACGTGCGAGGCGGAGCTGACCAAGGTGGGCGG
CAACGCCACGTGCGCGACGGAGCTCGCCAAGGCCATCTTCGAGGTGACCT
CGGAGAAGATCAGGAAGGCCATCAGCGAGTCGGCCACCCTGGAGGAGCTC
AAGAGCGACCCGCGCACGTGCGGGGCCCTCGAGAAGTGAAGGAGCTGCT
GGAGTACGCCATCGAGGACCTCAAGACCACCTTCGACCGCCTCGGCGGCT
TCGAGATGACCGACTTCAACAAGGCCCGCCGACCTCAAGACCTGGCTC
AGCGCCGCGCTCACCTACCAGGAGACCTGCCTCGACGGCTTCGCCAACAC
CACCACCGACGCCGCCCAAGATGCGCGGCGCGCTCAACGCCTCCCAGG
AGCTCACCGAGGACATCCTCGCGTGGTTCGACAGTTCTCCGCCTCCCTC
GGCAGCCTCAACATCGGGAAGAGGAGGCTGCTAGGGGAGGAGGACGGCAT
GCCTTACTGGATGAACGACGGGAAGAGGCGGCTGCTGGAGGCCGAGCCCT
CCGACCCGAGTTCAAGCCCAACGTACCCGTGCGCGCTGACGGCAGCGGC
GACTTCAAGACCATCAAGGAGCGCTCGCAAAGGTGCCGCCCAAGAGCGC
CTCCATGTACGTATGTACATCAAGGCCGGCACCTACAAGGAGTACGTCT
CCGTGGGCCGCCCTATCACCAACCTCGTTCGTCATCGGCGACGGCGACGAC
AAGACCATCATCACCGGCAACAAGAACTTCAAGATGAACATCACCAACAA
GGACACCGCAACCATGGGAGGCAATCGGGAACGGCTTCTTCATGAAGGGC
GTGAGGGTGGAGAACACGGCGGGGGCCGAGAACCACCAGGCCGTGGCACT
GCGGGTGCAGAGCGACACAGGCGCTCTTCTACCAGTGTACTTCGACGGGT
ACCAAGACACGCTCTACACCCACGCGCAACGGCAGTTCTTCCGCGACTGC
ACCGTCACCGGCACCATCGACTTCATCTTCGGCAACTCCCAGGTGGTCAT
CCAGAAGTGCCTCATCCTGCCGCGCAAGGCCATGGACAACCAGCTCAACA
TCATCACCGCGCAAGGGCGGGCGGAGAAGCGCTCCGTGCGGGGACCGTC
ATGCACAACAACACCATCGAGCCGACCCGGACTTCAAGGACTCGACGGG
CAAGATCAAGACCTACCTGGCGCGCCATGGAAGGAGTACTCTAGGACCA
TCTACATCCAGAACGAGATCGGCGCCTTCATCGACCCCAAGGGCTGGCTC
GAGTGAACGGCGACTTCGCCCTCGAGACCCTCTTCTACGCCGAGGTGGA
GAACACCGGGGCCGGCGCGATATGAGCCAGCGCGCCAAGTGGGGCGGCA
TCAAGACTGTACCTACGCTGACGCACAAAAGGAGTACACCGTCGAGGCC
TTCATCCAGGGCGAGCAGTTCATCCCCAAGTACGGCGTGCCCTACATCCC
GGGGCTCCTCCCGAGTCGGAGGCGGGGAGGG

>*Triticum aestivum* cultivar Chinese *WheatPME1-A* predicted protein

MSKGAIIGASTVLVVAVVAVAVCVVSVFKNGGGDKDGEELTTSVKSVKAFQC
PMDYKETCEAELTKVGGNATSPELAKAIFEVTSEKIRKAISESATLEEL
KSDPRTSGALENCKELLEAYIEDLKTTFDRLGGFEMTDFNKAADLKTWL
SAALTYQETCLDGFANTTTDAAAKMRGALNASQELTEDILAVVDQFSASL
GSLNIGKRRLLEEDGMPYWMNDGKRRLLEAEPSAPEFKPNVTVAADGSG
DFKTIKEALAKVPPKSASMYVMIKAGTYKEYVSVGRPITNLVVIIGDGD
KTIITGNKNFKMNIITKDTATMGGNRERLLHEGREGGEHGGGREPPGRGT
ADTLYTHAQRQFFRDCTVTGTIDFIFGNSQVVIQNCLILPRKPMDNQLNI
ITAQGRREKRSVGGTVMHNNTEIHPHDFKDSTGKIKTYLARPWKEYSRTI
YIQNEIGAFIDPKGWLEWNGDFALETIFYAEVENTGPGADMSQRAKWGGI
KTVTYADAQKEYTVEAFIQGEQFIPKYGVPIPLLP

> *Triticum aestivum* cultivar Chinese *WheatPME1-B* gene

ATGAGCAAAGGCGCCATAATCGGCGCGTTCGACCGTCCTGGTGGTGGCGGT
CGTCGCCCGCGTCTGCGTCTCCTTCAAGGGCAACGGCGGCGACAAGG
GCGATGGGGAGCTCACCACCTCCGTCAAGTCCGTCAAGGCCTTCTGCCAG
CCCATGGACTACAAGGAGACGTGCGAGGCGGAGCTGACCAAGGTGGGCGG
CAACGCCACGTGCGGACGGAGCTCGCCAAGGCCATCTTCGAGGTCACCT
CGGAGAAGATCAGGAAGGCCATCAGCGAGTCGGCCACCCTGGAGGAGCTC
AAGAGCGACCCGCGCACGTGCGGGGCCCCTCGAGAAGTGAAGGAGCTGCT
GGAGTACGGCATCGAGGACCTCAAGACCACCTTCGACCGCCTCGGCGGCT
TCGAGATGACCGACTTCAACAAGGCCGCGCCGACCTCAAGACCTGGCTC
AGCGCCGCGCTCACCTACCAGGAGACCTGCCTCGACGGCTTCGCCAACAC
CACCACCGACGCCGCCCAAGATGCGCGGCGCGCTCAACGCCTCCCAGG
AGCTCACCAGGACATCCTCGCGTGGTTCGACAGTTCTCCGCCTCCCTC
GGCAGCCTCAACATCGGGAAGAGGAGGCTGCTAGGGGAGGAGGACGGCAT
GCCTTACTGGATGAACGACGGGAAGAGGCGGCTGCTGGAGGCCGAGCCCT
CCGACCCGAGTTCAGCCCAACGTACCGTCGCGCTGACGGCAGCGGC
GACTTCAAGACCATCAAGGAGCGCTCGCAAAGGTGCCGCCCAAGAGCGC
CTCCATGTACGTATGTACATCAAGGCCGGCACCTACAAGGAGTACGTCT
CCGTGGGCGCCCTATCACCAACCTCGTCGTATCGGCGACGGCGACGAC
AAGACCATCATCACCGGCAACAAGAACTTCAAGATGAACATCACCAACAA
AGACACCGCAACCATGGGAGGCGATCGGGAACGGCTTCTTCATGAAGGGC
GTGAGGGTGGAGAACACGGCGGGGCGGAGAACACCAGGCCGTGGCGCT
GCGGGTGCAGAGCGACACGGCCGTCTTCTACCAGTGTACTTCGACGGGT
ACCAAGACACGCTCTACACCCACGCGCAACGGCAGTTCTTCCGCGACTGC
ACCATCACCGGCACCATCGACTTCATCTTCGGCAACTCCCAGGTGGTCAT
CCAGAAGTGCCTCATCCTGCCGCGCAAGCCCATGGACAACCAGCTCAACA
TCATCACCGCGCAAGGGCGCCGCGGAGAAGCGCTCCGTGCGGGGACCGTC
ATGCACAACAACACCATCGAGCCGACCCCGACTTCAAGGACTCGACGGG
CAAGATCAAGACCTACCTGGCGCGCCCATGGAAGGAGTACTCCAGGACCA
TCTACATCCAGAACGAGATCGGCGCCTTCATCGACCCCAAGGGCTGGCTC
GAGTGAACGGCGACTTCGCCCTCGAGACCCTCTTCTACGCCGAGGTGGA
GAACACCGGGCCCGCGCCGACATGAGCCAGCGCGCCAAGTGGGGCGGCA
TCAAGACTGTACCTACGCCGACGCGCAGAAGGAGTACACCGTCGAGGCC
TTCATCCAGGGCGAGCAGTTCATCCCAAGTACGGCGTGCCCTTCATCCC
GGGGCTCCTCCCGCAGTCGGAGGCGGGGAGGG

> *Triticum aestivum* cultivar Chinese *WheatPME1-B* predicted protein

MSKGAIIGASTVLVVAVVAAVCVVSFKNGGDKDGELETTSVKSVKAFQC
PMDYKETCEAELTKVGGNATSPELAKAIFEVTSKIRKAISESATLEEL
KSDPRTSGALENCKELLEYAIEDLKTTFDRLGGFEMTDFNKAADLKTWL
SAALTYQETCLDGFANTTTDAAAKMRGALNASQELTEDILAVVDQFSASL
GSLNIGKRRLLEEDGMPYWMNDGKRRLLLEAEPSAPEFKPNVTVAADGSG
DFKTIKEALAKVPPKSASMYVMIKAGTYKEYVSVGRPITNLVVIIGDGD
KTIITGNKNFKMNIITKDTATMGGDRERLLHEGREGGEHGGREPPGRGA
ADTLYTHAQRQFFRDCTITGTIDFIFGNSQVVIQNCLILPRKPMDNQLNI
ITAQGRREKRSVGGTVMHNNITIEPHPDFKDSTGKIKTYLARPWKEYSRTI
YIQNEIGAFIDPKGWLEWNGDFALETIFYAEVENTGPGADMSQRAKWGGI
KTVTYADAQKEYTVEAFIQEQFIPKYGVPI PGLLP

>*Triticum aestivum* cultivar Chinese *WheatPME1-D* gene

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ATGAGTAAAGGTGCGATCATCGGCGCGTCCGACCGTCTGGTGGTGGCGGT
CGTCGCGCCCGTGTGCGTCTGTCTTCAAGGGCAACGGCGCGACAAGG
GCGATGGGGAGCTCACCACCTCCGTCAAGTCCGTCAAGGCCTTCTGCCAG
CCCATGGACTACAAGGAGACGTGCGAGGCGGAGCTGACCAAGGTGGGCGG
CAACGCCACGTGCGCGACGGAGCTCGCCAAGGCCATCTTCGAGGTGACCT
CGGAGAAGATCAGGAAGGCCATCAGCGAGTCGGCCACCCTGGAGGAGCTC
AAGAGCGACCCGCGCACGTGCGGGGCCCTCGAGAAGTGAAGGAGCTGCT
GGAGTACGCCATCGAGGACCTCAAGACCACCTTCGACCGCTCGGCGGT
TCGAGATGACCGACTTCAACAAGCCCGCCCGACCTCAAGACCTGGCTC
AGCGCCGCGCTCACCTACCAGGAGACCTGCCTCGACGGCTTCGCCAACAC
CACCACCGACCGCCGCCAAGATGCGCGGCGCGCTCAACGCCCTCCAGG
AGCTCACCGAGGACATCCTCGCGTGGTTCGACAGTCTCCGCCCTCCCTC
GGCAGCCTCAACATCGGGAAGAGGAGGCTGCTAGGGGAGGAGGACGGCAT
GCCTTACTGGATGAACGACGGGAAGAGGCGGCTGCTGGAGGCCGAGCCCT
CGCACCCGAGTTCAAGCCCAACGTCACCGTCGCGCTGACGGCAGCGGC
GACTTCAAGACATCAAGGAGGCGCTCGCAAAGGTGCCGCCAAGAGCGC
CTCCATGTACGTATGTACATCAAGGCCGGCACCTACAAGGAGTACGTCT
CCGTGGGCGCCCTATCACCACCTCGTCTCATCGGCGACGGCGACGAC
AAGACCATCATCACCGGCAACAAGAAGTCAAGATGAACATCACCACCAA
GGACACCGCAACCATGGGAGGCAATCGGGAACGGCTTCTTCATGAAGGGC
GTGAGGGTGGAGAACACGGCGGGGGCCGAGAACCACCAGGCCGTGGCACT
GCGGGTGCAGAGCGACACGAGCCGTCTTCTACCAGTGTACTTTCGACGGGT
ACCAAGACACGCTCTACACCCACGCGCAACGGCAGTCTTCCGCGACTGC
ACCGTCACCGGCACCATCGACTTCATCTTCCGCAACTCCCAGGTGGTCAT
CCAGAAGTGCCTCATCCTGCGCGCAAGCCCATGGACAACCAGCTCAACA
TCATCACC CGCAAGGGCGGCGGAGAAGCGCTCCGTGCGGGGACCGTTC
ATGCACAACAACACCATCGAGCCGACCCGGACTTCAAGGACTCGACGGG
CAAGATCAAGACCTACCTGGCGCGCCATGGAAGGAGTACTCTAGGACCA
TCTACATCCAGAACGAGATCGGCGCCTTCATCGACCCCAAGGGCTGGCTC
GAGTGAACGGCGACTTTCGCCCTCGAGACCCTCTTCTACGCCGAGGTGGA
GAACACCGGGCCCGGCGCGGATATGAGCCAGCGCGCCAAGTGGGGCGGCA
TCAAGACTGTACCTACGCTGACGCACAAAAGGAGTACACCGTCGAGGCC
TTCATCCAGGGCGAGCAGTTCATCCCAAGTACGGCGTGCCTTACATCCC
GGGGCTCCTCCCGCAGTCGGAGGCGGGGAGGG
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>*Triticum aestivum* cultivar Chinese *WheatPME1-D* predicted protein

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MSKGAIIGASTVLVVAVVAAVCVVSFKNGGDKDGELETTSVKS VKAFQC
PMDYKETCEAELTKVGGNATSPELAKAIFEVTSEKIRKAISESATLEEL
KSDPRTSGALENCKELLEAYAIEDLKTTFDRLGGFEMTDFNKAADLKTWL
SAALTYQETCLDGFANTTTDAAKMRGALNASQELTEDILAVVDQFSASL
GSLNIGKRRLLEEDGMPYWMNDGKRRLLEAEPSAPEFKPNVTVAADGSG
DFKTIKEALAKVPPKSASMYVMIKAGTYKEYVSVGRPITNLVVI GDGDD
KTIITGNKNFKMNIITKDTATMGGNRERLLHEGREGGEHGGREPPGRGT
ADTLYTHAQRQFFRDCTVTGTIDFIFGNSQVVIQNCLILPRKPMDNQLNI
ITAQGRREKRSVGGTVMHNNTIEPHPDFKDGSTGKIKTYLARPWKEYSRTI
YIQNEIGAFIDPKGWLEWNGDFALETFLFYAEVENTGPGADMSQRAKWGGI
KTVTYADAQKEYTVEAFIQGEQFIPKYGVPIYI PGLLP
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Figure S1. *WheatPME1* gene and protein sequences. Fasta sequences of hexaploid cv Chinese Spring *WheatPME1-A*, *WheatPME1-B* and *WheatPME1-D* genes and encoded polypeptides.