

**Table S4.** DNA sequences informations

> Validated DNA sequences of *PmSPXI*

AAACATTTTCAGCCAGAGCTTTTTCCCATATAACACTTCTTTGGGATGCATTTTGTGAAT  
TGTC AATTCTAGATTGGATCCAGTTTGTAATTCGCTCCGAGTCCGAATTCAGACCTCTG  
TTTCTTTTTCCAAGTGCAGAACTTCGGTATACTGGGAATGCCAGAGGTGTTTGAGTAA  
GTTTCATCAGATTACAGAAGCAGTTATATTTTTGAATCTTCTTCATATTATATACAGTTAT  
ATTTCTGAATCTTCAGAGTGTGCTGCAGCGTTTCCTGTTGAGATTCTTTATAAAGATC  
TCCTTTGAAGGGCATAGGGTTTTGAATTTTTGGCAGATGCAAATGAAAATGATATTTTA  
AATGTATTTGAAATTACAAATTTTTCTACGACGGAATTACTTTAAGCTCCCGTTTAGATT  
TCTTTATAAAGATCTTCTCTGAAGGGCCAAGGGTTCGGATATTTGGCAGATGCAGATG  
GAAATGATCTTTTAAATACAGTTGGAAATACAAAATTTTCTACGACGGAAATGCTTTAA  
GCTAACCATCAAAATGAAATTCGGAAGAATTCTGAAGAGCCAGATCGAAGAAGCTCC  
ACCTGAATGGCGAGACCAATATCTGTCGTACAAAAAACTCAAGAAACGTCTGAAGTCC  
ATTTTTCTTTAAAAGTGTTTCAGGAAGCCGAAGACGAAACGCCAAAAGTAGTCCGCA  
AGAGGCCAAGGATCGAAGCGCTGGGAGTTCCAGAGTCTGTAGCCGAAAGAGAAAGTG  
ATTCTTATTCTTTCGCTAAAAGAAATGATTCAAACGACTGTGCAAGCATCGATGACCTT  
AATGATATCAAAGACATGTCTGCGGCAGAATTCGATTTTCATAGAGCTGCTAAATCCGGA  
GCTTGAGAAGTTTAATGATTCGTTCATGGCTAAGGAAAAGGAGTACATCATCCGTCAAA  
AGGTACTCTACTCTAGTTAGGGCATCTTATGTTCGATTGTCCGGGCTATAGTTCTGATATT  
TTCCACCTGTCATGATCCCATGTCTCAAACCTTGTTTTTTGAACAGGAATTGCAGGAG  
AGGATTCAAAGGGCGAGGAATACTGTTCGGTCCGAGCGGCAAGCAAGATTTGATCAAA  
GTCAGCCACGACGTTGTCAAATTTACGGCGGAAATGGTTCTCTTGGAGAGTTACAGCA  
TTTTGAATTTACCGGTAAATATCCAGAACCTTGTTTTTAATCTTGTTTGTCTTCCACTTG  
GAAAGCCAAATTGATACATCCTGTTACCCTTACCCTTATCAGGTTTGGTAAAAATAACA  
AAGAAATACGACAAAAGAACCGGCGGAATCCTGCGTCTGGCGTTTATTGAGAGGTTT  
TAGGGCAGCCGTTTTTACCATGGAACCTTCTGTTCAAGCTCGTCAAGCAATGCGAGGA  
AACCTTCATAACCTGTTTTCTCGTCAGAGGACGAGGGAGAAGAAACAGAGGACGA  
GGAAGAAGAAACAGAGGACGAAGCGGTGGTGGATCTAGGGCAAGACCAGATATACAG  
AAGCACCATGGCCGCCCTTCGCAGCATGAAAGAAATGCGCAGAGGCAGTTCTACTTAC  
GGCCCTTCTCGTTTCTCCTCACTGCATCACGACATGCCCCCGGCGTCTCCTCATCGAT  
CCCAACAAGTCACACCAAT

>ORF sequences of *PmSPXI*

ATGAAATTCGGAAGAATTCTGAAGAGCCAGATCGAAGAAGCTCCACCTGAATGGCGA  
GACCAATATCTGTCGTACAAAAAACTCAAGAAACGTCTGAAGTTTCAATTTTTCTTTAAA  
AGTGTTTCAGGAAGCCGAAGACGAAACGCCAAAAGTAGTCCGTAAGAGGCCAAGGAT  
CGAAGCGCTGGGAGTTCCAGAGTCTGTAGCCGAAAGAGAAAGTGATTCTTATTCTTTC  
GCTAAAAGAAATGATTCAAACGACTGTGCAAGCATCGATGACCTTAATGATATCAAAG  
ACATGTCTGCGGCAGAATTCGATTTTCATAGAGCTGCTAAATCCGGAGCTTGAGAAGTTT  
AATGATTTCTGTCATGGCTAAGGAAAAGGAGTACATCATCCGTCAAAAGGAATTGCAGG  
AGAGGATTCAAAGGGCGAGGAATACTGTTCGGTCCGAGCGGCAAGCAAGATTTGATCA  
AAGTCAGCCACGACGTTGTCAAATTTACGGCGGAAATGGTTCTCTTGGAGAGTTACAG  
CATTTTGAATTTACCGGTTTGGTAAAAATAACAAAGAAATACGACAAAAGAACCGGC

GGAATCCTGCGTCTGGCGTTCATTCAGAGGGTTTTAGGGCAGCCGTTTTTCACCATGGA  
ACTTCTGTTCAAGCTCGTCAAGCAATGCGAGGAAACCCTTCATAACCTGTTTTCTCGT  
CAGAGGACGAGGGAGAAGAAACAGAGGACGAGGAAGAAGAAACAGAGGACGAAGC  
GGTGGTGGATCTAGGGCAAGACCAGATATACAGAAGCACCATGGCCGCCCTTCGCAGC  
ATGAAAGAAATGCGCAGAGGCAGTTCTACTTACGGCCCCCTTCTCGCTTCCTCCACTGC  
ATCACGACATGCCCCCGGCGTCTCCTCATCGATCCCAACAAGTCACACCAAT**TGA**

>ORF sequences of *PmSPX4*

**ATG**AAGTTTGGTAAGCGTCTGCAGATCCAGATCGACGAAACTCTTCCCGAGTGGCGTG  
ATAAATTTCTGTCATACAAGCCTCTCAAAAAGCGACTAAAACAGGTTGCGGGCCCAGA  
GTGGTTTACAGCTGTTGGATTTTGTGCAGCTAGTCCTCAACATGATGGAAGCTCGTCAT  
CTGTGGTAGACAAGTTTATCCAAGAGCTCAGAAAAGGTAGTGCTGCCCTTGGTGAGAT  
TGTAATAAACCAGCAAATGAGAGTGCAGCTGAAGCAGCTAGCTCGAAGCCTGCTTCA  
GAAATTGGTGCAGGAATCAATGATGAAGTGTCAAGTGAGTCTAGCACCCATGCCCTG  
CAGAAAGGAACTCTGAAAGAAAGGCAGGAAATTTTGATGAGGAAGATTTATTAATCT  
TATAAATGAGGAGCTTGAGAAATTTAATAACTTCTTCTTAGAAAAGGAGGAGGAGTATG  
TGATTCATCTCCAGGAGCTAAAAGAAAGGATTGAAAGATTGAAAGAACGTAGCAGAC  
AAAATGGAACATACACCTCAGAGTATGAATTCAATGAAGAAACAGTGAAGATCCGTAG  
AGACATTGTTGCCATCCATGGGGAGATGGTACTGCTTGAGAACTATAGTTCTCTCAATT  
TTATAGGTTTGGTGAAAATTTTGAAAAATATGACAAAAGAACGGGTGCATTGTTACGT  
TTGCCTTTACCCCAAAGTGTTCTTCAGCAACCATTCTTCACCACTGAACTGCTTTCAA  
GCTTGTAAGTGAATGTGAGGCTAACCTTCAGAGCATCTTCCCTCCATTCCCGTAGATG  
AAAGGGGCGATTGTGCTACTGAACAGTCCAGGGATGAAAACAATGATGCAAATGCAC  
AGGAAACCTTGTCACTTCAAGGAGACACTGGCATCTACAGAAGTACTCTTGCGGCTTT  
GAGAACCATTACAGGATCTCCGGAAAGGTAGCTCTACATATAATCCCTTATCTTTGCGCC  
CTTTGTTCCAGGTGATATTGAGGATGGCTTGGTTGCTGGTGGCAACGATAAGTCAAAGT  
CAAATCTTCACATTCCAAGACCAATGGCAATGCACAGAATGAGGAAAATGTTATGTCA  
ACCACTAGAGTGAATATGGTGCAGCCCTCTCTTGAAACAAATGAGGGTTTTACTTCCAG  
TGAACAGGAAGAAGTGGCTGTTCT**TGA**

>ORF sequences of *PmWRKY75*

**ATG**AAGAACGATATGTCTGCTCGCATGAATATTGACCCCGCAACAAGACACAATTTCTT  
TCATTATGCTTCTGGCGGCTACGAAGATTGGTTTTCTCGCCGAATTCATTGTTACGCG  
ACCAGTGTCTTGGGTTGATACAAATTCATGAATCCAGATATTTCCACCACTGCAAATA  
GCTCAAGTTTCCCGCGGATTAATGGAGGCATTAATGGAATAAGCAGCTCGAACACTCAT  
TCCTCCCCGGCAGCTTCTCATGGTTTAACAGAGTTTATCCAAACCCAGCCACGGGCTCA  
TGATCAAGGGAAAACCTGAACATGCGAACAGTATGAAGAACATACTACAACAACAACA  
ACAGGATCAGATGAATCAGAGTGGGTGCAATCCTAGCATCTGGAAACCTTCCTGGTTAT  
CACAGACAACGACGAGTGGTAAGGAGGAATCTGTGCAGAGAACAGAATTTAGTGTTT  
CAGGGGGCTTTCCCGAATCAAATCTTCTGGAGATACGCAAGCTAGACTTTCTGCTATG  
AGAGGGTTTACTGGATTAGAAGGACAAATGTTTCCTGCAGTACATGATGAACATAATAA  
AGGAATCGCGCAATCTGAAAGAGCACAGTTAGGAGAAAACGATGGTGGAAATGTAAA  
GGATAACAGATCAAGATCTCGAGGTAAGCTGGAGAAGAGAATTGAAGGCCAGATAC  
GCATTTACAGACAAGAAGCCAAGTTGACATTCTGGATGATGGGTATCGTTGGAGAAAAT

ATGGTCAGAAGTCGGTGAAAAACAATCTTTATCCAAGAAGTTATTACCGCTGCACCCA  
CCAAACTTGCAGTGTGAAGAAACAGGTCCAGCGACTTTCAAGAGATCCAGAGATTGT  
TGTGACAACGTATGAGGGCATAACATGCACCCTTCAGAAAAATCAATGGAGAGTTTC  
GACCACATTTTGAACCAAATGCACTTTCTATCTTAA