

Table S4 The sequences of non-functional *StMYB113-3*, *StbHLH1-1* and *StbHLH1-4*

> *StMYB113-3*

ATGAACTTGCCAAGTCATTGGGAGTGAGAAAAGGTTTCATGGACTAAAGAAGAAGATATTCTTTTGAGGAAAT
GTATTGACAAGTATGGAGAAGGAAAAGTGGCATCTTGTTCTTCTAGAGCTGATGGTCACTTATTGCTGGGAGA
CTTCCAGGAAGAACAGCAAACGATGTGAAAAATTATTGGAACACACACCTACACAGGAAGTTAATAACCCCTC
CTCATGAGATACAAGAGAATAAGTACAATAATACCCTCAAGATCACTGAAAGCACTATACTACGACCACGACC
TCGACCTCGAACCTTCTCAAGTGCAAATAATATTTCTTGGTGCCTAACAATAGTATGATCACAACACATTAG
ACAAAGATGACGAACAACGCAACAAAGAAATCGTAGTAAATATTTGTGAGAAGCCAACAAGAGAAACAACGT
CATCGTCTATAGACGATGACGGAGATGGAGTTAAATGGTGGACAGACTTATTGGAAAATTGGAAAGAATTTG
AGGAAGAAGCAGCAGCAGTATTGAGTTTTGAGGAAGAAAATAAGTTGTTACCAAATTTGTTGTATGAGGAAC
ATAATCAACAACCATGCAACATGGAGAAAATGATGGTTGGGATGACTTTTCAGTTGATATTGACCTATGGAA
TCTATTTAATTAG

> *StbHLH1-1*

ATGGAGATTATACAGCCTAATAGCCTGCAGTTACAAAACATGTTGCAGAATCCGTCCAGTCGGTTAAATGGA
CTTATAGTCTTTTTGGCAATTTGTCCAAAACAAGGGGTGTTAGTGTGGAGAGATGGATATTATAATGGAGC
TATAAAGACAAGGAAAACGTGCAGCCAATGGAAGTTACTGCTGAAGAAGCTTCGTTTCATAGAAGCCAACA
ACTTAGAGAACTTTATGATTCACTTTCTGCCGGCGACTCAAATCCGCCGGCGAGAAGGCCGTCCGCAGCCTTG
TCGCCGGAGGATTTGACGGAATCCGAGTGGTTTTATCTCATGTGTGTTTCTTTCTTTTCTCCACCTATTGGA
TTACCAGGCAAGGCTTATTCAAAGAAACATCACATATGGATAATGGGTGCAAATGAGGTTGATAGCAAAGTCT
TCTGTAGAGCTATTCTTGCTAAGAGTGCCCGCATAACAGACTGTCGTTTGTATTCTCTCTTGGACGGTGTAGTG
GAACTGGGAACTACAGAAAAGGTTCAAGAAGACATTGGATTACATCATGTAAAAAGCTTCTTCAATGAGC
AACAACAAGCTCAGCCACCAAAGCCAGCTTTATCTGAGCACTCCACTTCGGATCCCGCCGCTTTTCGGAGCCA
CATTTTTACTCCAGCAATACTCCGTCATCCGCTGGTATTTGTCCAGCGGATCAAGATGGTAGAATTGCTGGAGA
AGAAGAAAATGAGGATGAGGATGAGGATGAGGACGAGGATGAGGATGACGAAGAAGAAAATGATGAAGTT
GAATTAGACTCGAATGGTATAGCAATTCAAAGTGTGCTGGGGCGGCTAATCCTATAGCGGCTGAGGCTAGT
GAGCTCATGCCGCTTGATATGTCTGAACTATACGGCTCGGCTCGCCGATGATGGCTCTAATAATATGGATA
CTGATTTATATTTGGATGGTATTAGCCAAGCTGGAATACGGCTGACTCTTCAAAGCTGAGACTGCAATTAGT
TGGGCTAACTTCAAGACCTTCAACATTTAACAGGTGTCCCTAGTTATGATGAATTATCACAAGAAGATGCACA
TTATTCTCAAACAGTTTCACTGTACTTGAACACCTCTCAAACACAAGTTCCAAATTTGCCTCTTCTACTACCATA
ATGGGCTCTATTTCTCCTGATTAGCCCAATCCGCTTTACATTATGGCCCATATTTGTAGCCCAAATCCCTCC
CACTGCCATCGCCAACACGGCGGCGACGGCAGTGGGACCAGCTCCAGTGGCTGCTCAAAGCATACTATTC
ACTGTCCCATTTCTCCACTACTAAAAAATTACACCAACTACCTGAAGCTCTTTCTCAAAGTCACGAGACTCT
GCGGCCGACTCTCAGCCGACGCTCTCGATTCCGCAAAGGATGTACGATAAATAGTAGTACACAACAAGAA
GAGACGAATGGGAACCATGTACTAGCGGAACGACGTCGTAGAGAGAAGCTGAATGAGCGTTTTATTATTTTA
AGGTCCTTAGTACCGTTCGTTACGAAAATGGATAAAGCATCGATACTTGTGATACAATAGAGTATGTGAAGCA
GTTACGTAAGAAAGTTCAAGGATCTTGAAGCGGTGATCGTCACGCGGAAACCACAAAAAATGCAGATGAAAA
GAGTGGTACAGCAACAGTGAAGGCGTTTTCCGGGAAGGGTAAGAGGAGAATGAAGAGTGCAGTGGAGGGA
AGTATAGGCGGAGCACCAGCAAAGATCACCGCTCTCCACCTATGGATGAGGAAGTTTTGCAAGTGGAAAGTC
TCAATCATCGAAAACGATGCACTGGTGGAGCTCCGGTGTCCGTACAAAGAAGGGTTGTTGTTAGATGTAATGC
AAATGCTAAGGGAACTAAAAGTGGAAAGTTGTAGCAATCCAATCATCTTAACTGGCCTCTTATTGGCTGA
GTTAAGAGCTAAGGTAAGAAGATATATATGGAAGGAAAGCAAGCATTTTGGAAAGTAAAAAGTCAATACA
TCAGATAATCCCTAGAGCTAATTAA

> *StbHLH1-4*

ATGGAGATTATACAGCCTAATAGCCTGCAGTTACAAAACATGTTGCAGAATCCGTCCAGTCGGTTAAATGGA
CTTATAGTCTTTTTGGCAATTTGTCCAAAACAAGGGGTGTTAATGTGGAGAGATGGATATTATAATGGAGCT
ATAAAGACAAGGAAAACGTGCAGCCAATGGAAGTTACTGCTGAAGAAGCTTCTCTTCATAGAAGCCAACAA
CTTAGAGAACTTTATGATTCACTTTCTGCCGGCGACTCAAATCCGCCGGCGAGAAGGCCGTCCGCAGCCTTATC
GCCGGAGGATTTGACGGAATCTGAGTGGTTTTATCTCATGTGTGTTTCTTTCTTTTCTCCACCTATTGGATT

ACCAGGCAAGGCTTATTCAAAGAAACATCACATATGGATAATGGGTGCAAATGAGGTTGATAGCAAAGTCTT
CTGTAGAGCTATTCTTGCTAAGAGTGCCCGCATACAGGTAATAAACTTTACCTGCAGACCCTTTGACTTATTA
ATTTCCAATTACTGTCTGTTTGTATTCCTCTCTTGGACGGTGTAGTGGAAGTGGGAAGTACAGAAAGGGTTC
AAGAAGACATTGGATTCATACATCATGTAAAAAGCTTCTTCAATGAGCCACAACAAGCTCAGCCACCAAAGCC
AGCTTTATCTGAGCACTCCACTTCGGATCCCGCCGCCTTTTCGGAGCCACATTTTTACTCCAGCAATACTCCGTC
ATCCGCTGGTATTTGTCCAGCGGATCAAGACGGTAGAATTGCTAGAGAAGAAGAAAATGAGGATGAGGATG
ACGAAGAAGAAAATGATGAAGTTGAATTAGACTCGGATGGTATAGCAATTCAAAGTGTGCTGGGGCGGCTA
ATCCTATAGCGGCTGAGGCTAGTGAGCTCATGCAGCTTGATATGTCTGAAACTATACGGCTCGGCTCGCCGGA
TGATGGCTCTAATAATATGGATACTGATTTATATTTGGATGGTATTAGCCAAGCTGGAAATACGGCTGACTCTT
TCAAAGCTGAGACTGCAATTAGTTGGGCTAACTTCCAAGACCTTCAACATTTAACAGGTGTCCCTAGTTATGAT
GAATTATCACAAGAAGATGCACATTATTCTCAAACAGTTTCAGCTGTACTTGAACACCTCTCAAACACAAGTTC
CAAATTTGCCTCTTCTACTACCATACTGGGCTCTATTTCTCCTGATTCAGCCCAATCCGCTTTCACATTATGGCCC
ATCATTGTAGCCCAAATCCCTCCCACTGCCATCGCCAACACGGCGGCGACGGCAGTGGGACCAGCTCCCAGT
GGCTGCTCAAAGCATACTATTCAGTGTCCCATTTCTCCACACTACTAAAAAATTACACCAACTACCTGAAGCTC
TTTCTCAAAGTCACGAGACTCTGCGGCCGACTCTCAGCCGCAGCGTCTCGATTCCGCAAAGGATGTACGAT
AAATAGTAGTACACAACAAGAAGAGACGAATGGGAACCATGTACTAGCGGAACGACGTCGTAGAGAGAAGC
TGAATGAGCGTTTTATTATTTAAGGTCCTTAGTACCGTTCGTTACGAAAATGGATAAAGCATCGATACTTGGT
GATACAATAGAGTATGTGAAGCAGTTACGTAAGAAAGTTCAGGATCTTGAAGCGCGTGATCGTCACGCGGAA
ACCACAAAAAATGCAGATGAAAAGAATGGTACAACAATAGTGAAGGCATTTCCGGGGAAGGGTAAGAGGAA
AATGAAGAGTACGGTGGAGGGAAGTATAGGCAGAGCACCGGCAAAGATAACGGTGTCTCCACCTATGGATG
AAGAAGTTTTGCAAGTGGAAAGTCTCAATCATCGAAAACGATGCATTGGTGGAGCTCCGGTGTCCGTACAAAG
AAGGGTTGTTGTTAGATGTAATGCAAATGCTAAGGGAAGTAAAGTGGAAAGTTGTAGCAATCCAATCATCTCT
TAATACTGGCTTCTTATTTGCTGAGTTAAGAGCTAAGGTAAGAAGATATATATGGAAGGAAAGCAAGCATT
TTGGAAGTGAAAAGTCAATACATCAGATAATCCCTAGAGCTAATTAA