

Cultivar-specific gene modulation in *Vitis vinifera*: analysis of the promoters regulating the expression of WOX transcription factors.

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Supplementary Figures

Supplementary Figure S1. Sequence Alignment by Clustal MUSCLE tool (<http://www.ebi.ac.uk/Tools/msa/muscle/>) of the promoters sequences cloned from ‘Chardonnay’ (CH) and ‘Cabernet Sauvignon’ (CS) of the genes *VvWOX1*, *VvWOX4*, *VvWOX6*, *VvWOX9* and *VvWOX13C*. The mutations between the sequences isolated from the two cultivars were underlined in green.

pVvWOX1

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pVvWOX1_CH      GGGCGTAATGTATGGTTTACAACAAAAGAAAAAGTCTGCAATTTGGATTTTCGGAAAGTG
pVvWOX1_CS      GGGCGTAATGTATGGTTTACAACAAAAGAAAAAGTCTGCAATTTGGATTTTCGGAAAGTG
*****

pVvWOX1_CH      AAATACATGTACTCCTAAATCAGATAAGGGGTTCCAAAGCTCACTATATATTTGAACTCA
pVvWOX1_CS      AAATACATGTACTCCTAAATCAGATAAGGGGTTCCAAAGCTCACTATATATTTGAACTCA
*****

pVvWOX1_CH      TATTTGCCGGAAAATTTTCAGATTCAATGGAGTCTTTTGTGTTGTTGAGAGATAGGGAGTT
pVvWOX1_CS      TATTTGCCGGAAAATTTTCAGATTCAATGGAGTCTTTTGTGTTGTTGAGAGATAGGGAGTT
*****

pVvWOX1_CH      TTTGTTCTATACTCCTATACTTGTGGAATTTCTGTGAATATCTCATTTTGGCTACCTCTT
pVvWOX1_CS      TTTGTTCTATACTCCTATACTTGTGGAATTTCTGTGAATATCTCATTTTGGCTACCTCTT
*****

pVvWOX1_CH      ATTTCTCCATTTTTCACCGCAAATCGTTGCTATTCTTCTGTAAAGCCTCTCTCACCAA
pVvWOX1_CS      ATTTCTCCATTTTTCACCGCAAATCGTTGCTATTCTTCTGTAAAGCCTCTCTCACCAA
*****

pVvWOX1_CH      TCGCCCCCTGGTGTCTCAACCATCTCTCTTCCCTTCCACCATGTGCGTAGAGTAGTACTA
pVvWOX1_CS      TCGCCCCCTGGTGTCTCAACCATCTCTCTTCCCTTCCACCATGTGCGTAGAGTAGTACTA
*****

pVvWOX1_CH      GCTTTGGACTTGGGTTTTGAGTCTATCCCTGGCCCATCTAGGGCATGGAATTTTTCGCT
pVvWOX1_CS      GCTTTGGACTTGGGTTTTGAGTCTATCCCTGGCCCATCTAGGGCATGGAATTTTTCGCT
*****

pVvWOX1_CH      CCTTCTGCCTCTTTGAAGCCCAAGCCTGAGCTGACCCATGACCTAGTTCGCATTCCAACC
pVvWOX1_CS      CCTTCTGCCTCTTTGAAGCCCAAGCCTGAGCTGACCCATGACCTAGTTCGCATTCCAACC
*****

pVvWOX1_CH      TTTCTAAATACAGCCAACCTGCATGTCCATATCAATCTTCAAATCCATGGCAGCTTGTGG
pVvWOX1_CS      TTTCTAAATACAGCCAACCTGCATGTCCATATCAATCTTCAAATCCATGGCAGCTTGTGG
*****
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pVvWOX1_CH ATGAGGTGGTAATGTCGTGGAACTTGTGGATCAGAGCTCTTGAATCTTCTCAAAGCCAT
pVvWOX1_CS ATGAGGTGGTAATGTCGTGGAACTTGTGGATCAGAGCTCTTGAATCTTCTCAAAGCCAT

pVvWOX1_CH CTTTCTAGGCTCCAAAATGAGTATGTGGTACAATATTTTTAAAAATATATCTATTTACATA
pVvWOX1_CS CTTTCTAGGCTCCAAAATGAGTATGTGGTACAATATTTTTAAAAATATATCTATTTACATA

pVvWOX1_CH TAACAACATATGGCTTTGGAGCGCTTGAGTGGCACTCAAAGCTATCCTCTCATTTTACTAC
pVvWOX1_CS TAACAACATATGGCTTTGGAGCGCTTGAGTGGCACTCAAAGCTATCCTCTCATTTTACTAC

pVvWOX1_CH TTGCTGGGGTTTTGGTGCAAAAAGATTCAATAGATGGTTACACGTACAAGTAAAATGAAAA
pVvWOX1_CS TTGCTGGGGTTTTGGTGCAAAAAGATTCAATAGATGGTTACACGTACAAGTAAAATGAAAA

pVvWOX1_CH AGAGAATGTTGTATGCCTCTACCTACAAGTGAAGTAGAAATAAATAATTATTGAACAAT
pVvWOX1_CS AGAGAATGTTGTATGCCTCTACCTACAAGTGAAGTAGAAATAAATAATTATTGAACAAT

pVvWOX1_CH GATGATATGAAAAAGGGCAGATATAGATGGGCATGTACACTAACGACTCAAGAATTGAAT
pVvWOX1_CS GATGATATGAAAAAGGGCAGATATAGATGGGCATGTACACTAACGACTCAAGAATTGAAT

pVvWOX1_CH CATTCTTCATAATGGAGCCATGGGTGGGGGGGTGCTGAAGCTGTTGAAGCTAAGGGGCT
pVvWOX1_CS CATTCTTCATAATGGAGCCATGGGTGGGGGGGTGCTGAAGCTGTTGAAGCTAAGGGGCT

pVvWOX1_CH ATGCATACCCTACCTTCATGGACATGGACATCTCAAAAAATGAAATAAGGAGAGAAGAGA
pVvWOX1_CS ATGCATACCCTACCTTCATGGACATGGACATCTCAAAAAATGAAATAAGGAGAGAAGAGA

pVvWOX1_CH GCAGCAGCAGAGAAGATTCCAAATCAGACCCTGCAAATTTGATAGCACGTAAAAGGTGTTA
pVvWOX1_CS GCAGCAGCAGAGAAGATTCCAAATCAGACCCTGCAAATTTGATAGCACGTAAAAGGTGTTA

pVvWOX1_CH TATCATTCTATCACCATAGGTTAACCTAAAGGACAATAATCTATAGGATATAAAACAAAG
pVvWOX1_CS TATCATTCTATCACCATAGGTTAACCTAAAGGACAATAATCTATAGGATATAAAACAAAG

pVvWOX1_CH CTATATTATTGAAAGGACAAAGGTGTGAATGGAGGGAGAGAGAGAGAAGAGGGTAGAAAA
pVvWOX1_CS CTATATTATTGAAAGGACAAAGGTGTGAATGGAGGGAGAGAGAGAGAAGAGGGTAGAAAA

pVvWOX1_CH GGAATGTAATAAAAGAACCGTACAGAGAGAGAGAGAGAGAGAGAAAGAGAGAGAGACAA
pVvWOX1_CS GGAATGTAATAAAAGAACCGTACAGAGAGAGAGAGAGAGAGAGAGAAAGAGAGAGAGACAA

pVvWOX1_CH AGGAGAGGGGTGTGAGAGAGGGGCAGTTCGGATTTAGAATAAGTGTGAAAGGCACGAGAC
pVvWOX1_CS AGGAGAGGGGTGTGAGAGAGGGGCAGTTCGGATTTAGAATAAGTGTGAAAGGCACGAGAC

pVvWOX1_CH AGTGAGAGCAACAATAAATGAGAGAAAGAAGGTGATGAGGCTTATGATAACCCTCATGAT
pVvWOX1_CS AGTGAGAGCAACAATAAATGAGAGAAAGAAGGTGATGAGGCTTATGATAACCCTCATGAT

pVvWOX1_CH CGTCACGTCGTTTTTCATTCGCTTCTCCCGATAACTCCCAGAATTCCACGCTTCTCTCT
pVvWOX1_CS CGTCACGTCGTTTTTCATTCGCTTCTCCCGATAACTCCCAGAATTCCACGCTTCTCTCT

pVvWOX1_CH CTTCTCTCGCTTCTTCTCCTCTGCTTTTTTGCCTTTGCTTTTTGTCCATTTTAGACA
pVvWOX1_CS CTTCTCTCGCTTCTTCTCCTCTGCTTTTTTGCCTTTGCTTTTTGTCCATTTTAGACA

pVvWOX1_CH CACACACTCTCTCTCTCCCCCTTTCTTCTCTCTCCTGATATAGCCCAGTCAACCTCATG
pVvWOX1_CS CACACACTCTCTCTCTCCCCCTTTCTTCTCTCTCCTGATATAGCCCAGTCAACCTCATG

pVvWOX1_CH	TCTTCCTCACTTTGTTCCATTTTAAACCAACACCATTCTCTTTCTCCCATCCATTGGTCA
pVvWOX1_CS	TCTTCCTCACTTTGTTCCATTTTAAACCAACACCATTCTCTTTCTCCCATCCATTGGTCA *****
pVvWOX1_CH	ATCTTCATCTCTGAAACCCTGAAACTCAAACGCTCTCTATTCGGCTCACCTCTCCCATTT
pVvWOX1_CS	ATCTTCATCTCTGAAACCCTGAAACTCAAACGCTCTCTATTCGGCTCACCTCTCCCATTT *****
pVvWOX1_CH	CAACTAAATCACTTTTTCATTACCATCAAATACATACTACTTGTGACCCATTTCTGGTTTC
pVvWOX1_CS	CAACTAAATCACTTTTTCATTACCATCAAATACATACTACTTGTGACCCATTTCTGGTTTC *****
pVvWOX1_CH	TCCTTCCAGAGTAAAAGACA ACTTGGTGGAGCATTATATATCTACAGTTGTAGACCACC
pVvWOX1_CS	TCCTTCCAGAGTAAAAGACA ACTTGGTGGAGCATTATATATCTACAGTTGTAGACCACC *****
pVvWOX1_CH	TCCACGCCAATCCACCATTGCTTGCTCCATTCCCATTTGATCTGCAACTCAAAAACCTAA
pVvWOX1_CS	TCCACGCCAATCCACCATTGCTTGCTCCATTCCCATTTGATCTGCAACTCAAAAACCTAA *****
pVvWOX1_CH	TTTTCAGCCCAATATCATATATCATATGATTATATGCTAGTTGGGAAACAAAAACATTC
pVvWOX1_CS	TTTTCAGCCCAATATCATATATCATATGATTATATGCTAGTTGGGAAACAAAAACATTC *****
pVvWOX1_CH	ATGATTAGACTCTCCTTCTGTTCATTACTCATCTCTACACCCAAAATCCTTTCCTCTAG
pVvWOX1_CS	ATGATTAGACTCTCCTTCTGTTCATTACTCATCTCTACACCCAAAATCCTTTCCTCTAG *****
	-1
pVvWOX1_CH	TTTGGTGTCTTTACCCTCCACCTTCAAAGCAAAGCAACTTACA
pVvWOX1_CS	TTTGGTGTCTTTACCCTCCACCTTCAAAGCAAAGCAACTTACA *****

Percentage of identity between the two sequences: 99.8%.

pVvWOX4

pVvWOX4_CH	GTGATTGATGGGGGTGGTGTGCATGGAATCTGCTTAAGGTAGGCCAAAACATGGACTCAC
pVvWOX4_CS	GTGATTGATGGGGGTGGTGTGCATGGAATCTGCTTAAGGTAGGCCAAAACATGGACTCAC *****
pVvWOX4_CH	ATCCTATATAATCTCTGGAATGTCAACATTTCTATGATTATCCTAGGCATTCACGTCCAT
pVvWOX4_CS	ATCCTATATAATCTCTGGAATGTCAACATTTCTATGATTATCCTAGGCATTCACGTCCAT *****
pVvWOX4_CH	TTAGAATGACATCTGCCCAATAGAATTGAAGAGGTCATCTTCATTTCAAAGTTACTTTGC
pVvWOX4_CS	TTAGAATGACATCTGCCCAATAGAATTGAAGAGGTCATCTTCATTTCAAAGTTACTTTGC *****
pVvWOX4_CH	TTTTTCTAAGTACACAATTGGGATATAAAATTCACCGTGCAGGTTAATTATACACCAAAA
pVvWOX4_CS	TTTTTCTAAGTACACAATTGGGATATAAAATTCACCGTGCAGGTTAATTATACACCAAAA *****
pVvWOX4_CH	TAACCATACAGGTAATTTCTCTAAAAAGGGCTGGCTGTTGTAGTAGTTTCGCTTTCAAATT
pVvWOX4_CS	TAACCATACAGGTAATTTCTCTAAAAAGGGCTGGCTGTTGTAGTAGTTTCGCTTTCAAATT *****
pVvWOX4_CH	TTAATTAATCTGTACCATATTATCATCAACAGTTGAGAAGAAATTAACACAGTGTACGCG
pVvWOX4_CS	TTAATTAATCTGTACCATATTATCATCAACAGTTGAGAAGAAATTAACACAGTGTACGCG *****
pVvWOX4_CH	TATCCTTGTGATATCAAGCTGGATGGATTATATGGATATATGTCCCTCATGTCGCTTACT
pVvWOX4_CS	TATCCTTGTGATATCAAGCTGGATGGATTATATGGATATATGTCCCTCATGTCGCTTACT *****
pVvWOX4_CH	CTCTGTAGCTTCTGCATGGAGAGTTTCAAATGAGCTGTTTCAAATCAACATCCAAACA
pVvWOX4_CS	CTCTGTAGCTTCTGCATGGAGAGTTTCAAATGAGCTGTTTCAAATCAACATCCAAACA *****

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pVvWOX4_CH      TCACGCTGAGTATTTGTCAGTGTCAATTGCCTTAATTCGTACTATGTTAGGGAAGGAAGG
pVvWOX4_CS      TCACGCTGAGTATTTGTCAGTGTCAATTGCCTTAATTCGTACTATGTTAGGGAAGGAAGG
*****

pVvWOX4_CH      AAGGAAGGAAGGAAGGAAGGAGAAATTATGGGTACATCAGACTGGCAACCCAATCCTTT
pVvWOX4_CS      AAGGAAGGAAGGAAGGAAGGAGAAATTATGGGTACATCAGACTGGCAACCCAATCCTTT
*****

pVvWOX4_CH      CGAACAAGTATATTCATATTTACCGGGTGGGAAGGGGGAGAGGAGGATCCATAGCAGGTG
pVvWOX4_CS      CGAACAAGTATATTCATATTTACCGGGTGGGAAGGGGGAGAGGAGGATCCATAGCAGGTG
*****

pVvWOX4_CH      GGTGGATGTTAGTTACAGAACAATCATGCCTGGAGAATACTTGGCTAGATTCACGCATGG
pVvWOX4_CS      GGTGGATGTTAGTTACAGAACAATCATGCCTGGAGAATACTTGGCTAGATTCACGCATGG
*****

pVvWOX4_CH      AGTGCCTTTGATTGCTGATTC AAGGAGGAATAATAATGTTTGAGGTCTGAAATGGCCCCA
pVvWOX4_CS      AGTGCCTTTGATTGCTGATTC AAGGAGGAATAATAATGTTTGAGGTCTGAAATGGCCCCA
*****

pVvWOX4_CH      GTTGAATTTTTTCTTAACTTCTTCTAGATATCAGGTAGGTTTCATCAAGAAATTGTGGTTT
pVvWOX4_CS      GTTGAATTTTTTCTTAACTTCTTCTAGATATCAGGTAGGTTTCATCAAGAAATTGTGGTTT
*****

pVvWOX4_CH      TTGATTCCTTGGTCATATGTCTGTCACCTCAGAGAACACCCGACAATCCCTCTTCT
pVvWOX4_CS      TTGATTCCTTGGTCATATGTCTGTCACCTCAGAGAACACCCGACAATCCCTCTTCT
*****

pVvWOX4_CH      CTTATTCAATCAAACCCACATCCCCGTATACCTCCAAAGATCCACGACACAAGATGTG
pVvWOX4_CS      CTTATTCAATCAAACCCACATCCCCGTATACCTCCAAAGATCCACGACACAAGATGTG
*****

pVvWOX4_CH      GCTGGAATTGGCCTGTAATGCTAAATGTCAAAGTATACAGATTACATACTGTACAAAAGG
pVvWOX4_CS      GCTGGAATTGGCCTGTAATGCTAAATGTCAAAGTATACAGATTACATACTGTACAAAAGG
*****

pVvWOX4_CH      GTCAGAAGTCATGCTGTCTTGAACCTTTCCAAACAAAGACGCGAGGGTTTAGGGTCATA
pVvWOX4_CS      GTCAGAAGTCATGCTGTCTTGAACCTTTCCAAACAAAGACGCGAGGGTTTAGGGTCATA
*****

pVvWOX4_CH      TTTGCGGGGATTGAAGGATTTAGTGCACCCAAGACTCTCCACATTAGCCCCCAAGAAA
pVvWOX4_CS      TTTGCGGGGATTGAAGGATTTAGTGCACCCAAGACTCTCCACATTAGCCCCCAAGAAA
*****

pVvWOX4_CH      GACGCTCGTATGCGTTAGATGCTATAGAAGGAGAATCGAAAAGGCCACAGAAATTTGCAA
pVvWOX4_CS      GACGCTCGTATGCGTTAGATGCTATAGAAGGAGAATCGAAAAGGCCACAGAAATTTGCAA
*****

pVvWOX4_CH      TAATTTGTGAGAGAGTTTATGAATGCAGCACATGTGTGGTGTATATCTCACTTGATAATT
pVvWOX4_CS      TAATTTGTGAGAGAGTTTATGAATGCAGCACATGTGTGGTGTATATCTCACTTGATAATT
*****

pVvWOX4_CH      GCCAATCAGTGAAGAAGAAGC TGTGATTGCGGTTCATCAGGACAACCTGTAACAATAGCTTT
pVvWOX4_CS      GCCAATCAGTGAAGAAGAAGC -----
*****

pVvWOX4_CH      ACTCAAGACTTGATCATAATTG TGTGAAAAGACAATAAGATAAAATTTACCCCATGTAAAA
pVvWOX4_CS      ----- TGTGAAAAGACAATAAGATAAAATTTACCCCATGTAAAA
*****

pVvWOX4_CH      TACGTAGAAGATTGAGATATATATATTAGGTGATGAGTGGGAGGGTGAAGAATTTGGAAT
pVvWOX4_CS      TACGTAGAAGATTGAGATATATATATTAGGTGATGAGTGGGAGGGTGAAGAATTTGGAAT
*****

pVvWOX4_CH      ACAAAAATGAGATGAAAAGTG GGGTTGATGGGTTTATACTATTTGGGAAATTTGGAGCTAC
pVvWOX4_CS      ACAAAAATGAGATGAAAAGTG GGGTTGATGGGTTTATACTATTTGGGAAATTTGGAGCTAC
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pVvWOX4_CH      AGTTCCCAAAGAAGGGGATATGGAATTGAGATAGATTTGTTTGTGGGTTTTTTTTTTTTTT
pVvWOX4_CS      AGTTCCCAAAGAAGGGGATATGGAATTGAGATAGATTTGTTTGTGGGTTTTTTTTTTTTTT
*****

pVvWOX4_CH      TTTTTTCTCTCTTTTTCTTTTTTCAACATCTCTACCACTTAAAGACGGCCTCAGTTC
pVvWOX4_CS      TTTTTTCTCTCTTTTTCTTTTTTCAACATCTCTACCACTTAAAGACGGCCTCAGTTC
***** *

pVvWOX4_CH      CAGTCACCATATCCGTATCTTGAAAAGCAAAGAGTCCCATATTCAAGTTTGGGATTGG
pVvWOX4_CS      CAGTCACCATATCCGTATCTTGAAAAGCAAAGAGTCCCATATTCAAGTTTGGGATTGG
*****

pVvWOX4_CH      AGGAATTTTTTTTCATTCCTCTCCCTCCATCGCCCTCTCTGCTCACTTTATAGAGAAAA
pVvWOX4_CS      AGGAATTTTTTTTCATTCCTCTCCCTCCATCGCCCTCTCTGCTCACTTTATAGAGAAAA
*****

pVvWOX4_CH      GTTAAGAATGAGAGCCAAAGAGGCCACCGAAAAGCATGGACACCTTATCATGAAAGCAAG
pVvWOX4_CS      GTTAAGAATGAGAGCCAAAGAGGCCACCGAAAAGCATGGACACCTTATCATGAAAGCAAG
*****

pVvWOX4_CH      AAAAAACGACCGATTTGACGGGCCAACACACGCATATACACACACCACACGCTCATAACA
pVvWOX4_CS      AAAAAACGACCGATTTGACGGGCCAACACACGCATATACACACACCACACGCTCATAACA
*****

pVvWOX4_CH      ATATTTCTCATTCTCTCTCTCTCTTTCTCTCTCTCTATCTTTCTTTTTTGATGGAAAT
pVvWOX4_CS      ATATTTCTCATTCTCTCTCTCTCTTTCTCTCTCTCTATCTTTCTTTTTTGATGGAAAT
*****

pVvWOX4_CH      CCTAAGTCAACCTCACCTCATCATTTGGTCTTGTTCTTCTAAGCACCACTCATATCCC
pVvWOX4_CS      CCTAAGTCAACCTCACCTCATCATTTGGTCTTGTTCTTCTAAGCACCACTCATATCCC
*****

pVvWOX4_CH      ACTTTCTTTTCTTCTATCTCTCTCTCTCATCTTCCATATAAATTACCACCTCTCTATCATT
pVvWOX4_CS      ACTTTCTTTTCTTCTATCTCTCTCTCTCATCTTCCATATAAATTACCACCTCTCTATCATT
*****

-1
pVvWOX4_CH      CAATCCTCCCC
pVvWOX4_CS      CAATCCTCCCC
*****

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Percentage of identity between the two sequences: 96.7%.

pVvWOX6

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pVvWOX6_CH      TGTATACCAGTGGCAACATTCATTAACCTGGAGTCTGAAGGAGCAATAGTAACGGGATAAA
pVvWOX6_CS      TGTATACCAGTGGCAACATTCATTAACCTGGAGTCTGAAGGAGCAATAGTAACGGGATAAA
*****

pVvWOX6_CH      TTTTCCATTGGGTATAAAATTAGGCTTTCTTAATTACCCCTGCAACTATCCTTCTGTGCT
pVvWOX6_CS      TTTTCCATTGGGTATAAAATTAGGCTTTCTTAATTACCCCTGCAACTATCCTTCTGTGCT
*****

pVvWOX6_CH      ACCTGATGAAACAAAAGCGAGGGTATCACAAGCCCAATGACAACAGTCTCCTTTGACCA
pVvWOX6_CS      ACCTGATGAAACAAAAGCGAGGGTATCACAAGCCCAATGACAACAGTCTCCTTTGACCA
*****

pVvWOX6_CH      TGCACGAGGAGACCTTATTGAGCATATACAATTCCATCTACATTTTTTTTTTTTTTTTT
pVvWOX6_CS      TGCACGAGGAGACCTTATTGAGCATATACAATTCCATCTACA--TTTTTTTTTTTTTTTT
*****

pVvWOX6_CH      TGCTGCTCTTTGAAATGAGCAGTCCATCATTCAGTACACCAGCTCTTGGAAATCCTATAC
pVvWOX6_CS      TGCTGCTCTTTGAAATGAGCAGTCCATCATTCAGTACACCAGCTCTTGGAAATCCTATAC
*****

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pVvWOX6_CH TTGCTTTTATTTTTAAATTCATTTTACTTCACTGCAATCAGATATCAATCCTTTTATAC
pVvWOX6_CS TTGCTTTTATTTTTAAATTCATTTTACTTCACTGCAATCAGATATCAATCCTTTTATAC

pVvWOX6_CH TAGTTTGAATTGCTTGGATTTTTATGTGGAAAAGATCTAAACTGACTGAAATCTCGAAT
pVvWOX6_CS TAGTTTGAATTGCTTGGATTTTTATGTGGAAAAGATCTAAACTGACTGAAATCTCGAAT

pVvWOX6_CH GTTGAAAAATTTAACTGCCCCTAAAACCTCAGAAGAGTAAACATTGTTAGCACATGGACAA
pVvWOX6_CS GTTGAAAAATTTAACTGCCCCTAAAACCTCAGAAGAGTAAACATTGTTAGCACATGGACAA

pVvWOX6_CH AGTTGAGCAGAACTTCTCACTCAGATGCAGAATCCTTGAACCTGTCTAGTTTCAAAGAA
pVvWOX6_CS AGTTGAGCAGAACTTCTCACTCAGATGCAGAATCCTTGAACCTGTCTAGTTTCAAAGAA

pVvWOX6_CH CTGCCAGCTTTGAAGTAAGAAGTAAGATGAATTTAACAACATTCCAAAGCTAGAAATCA
pVvWOX6_CS CTGCCAGCTTTGAAGTAAGAAGTAAGATGAATTTAACAACATTCCAAAGCTAGAAATCA

pVvWOX6_CH AAATCATTATGCCTCTAATGCAGAAACAGACCTCCTCTGGAATCACAATCTCAGCTCCT
pVvWOX6_CS AAATCATTATGCCTCTAATGCAGAAACAGACCTCCTCTGGAATCACAATCTCAGCTCCT

pVvWOX6_CH ACATCTGGTGGCAGGTGCTTCATGTATCTTGTCAATCTTGTGTGTATTCAAACACAGAT
pVvWOX6_CS ACATCTGGTGGCAGGTGCTTCATGTATCTTGTCAATCTTGTGTGTATTCAAACACAGAT

pVvWOX6_CH AATAAAACAATAATCTTCAGGGCTTCCATTTTCCATAGTTCAATTGTTTCAAGGCATGAG
pVvWOX6_CS AATAAAACAATAATCTTCAGGGCTTCCATTTTCCATAGTTCAATTGTTTCAAGGCATGAG

pVvWOX6_CH ACTTGAACCTGAAAACAATGCATCAGATGGGAGAATCTACCTGGCATGCATGGGCCAGTC
pVvWOX6_CS ACTTGAACCTGAAAACAATGCATCAGATGGGAGAATCTACCTGGCATGCATGGGCCAGTC

pVvWOX6_CH TGGCCACAGTTTCAGGGCATGTACTGGCCACAGCTTGCTTCATAGCAGTAAACATGTACT
pVvWOX6_CS TGGCCACAGTTTCAGGGCATGTACTGGCCACAGCTTGCTTCATAGCAGTAAACATGTACT

pVvWOX6_CH CAATTTGCCAGTAGTCTGAACATGGCATTGCACTTTTGAATTTATTTAGACAAAAAATA
pVvWOX6_CS CAATTTGCCAGTAGTCTGAACATGGCATTGCACTTTTGAATTTATTTAGACAAAAAATA

pVvWOX6_CH ACAATGTCATGCTCATTTCTTTTCCCCCTTTTTTTTTTGGGCAAACATATCAACACCTC
pVvWOX6_CS ACAATGTCATGCTCATTTCTTTTCCCCCTTTTTTTTTTGGGCAAACATATCAACACCTC

pVvWOX6_CH CAGTAAAAATAGAAGCAGAAATTAATAGTGATATTTGTCACCTGCCATTATCACTCATGTC
pVvWOX6_CS CAGTAAAAATAGAAGCAGAAATTAATAGTGATATTTGTCACCTGCCATTATCACTCATGTC

pVvWOX6_CH TTTTTTAGGTTTTCTTTTATATTCTCCCTACCCAAAAAGAAAAGTATGCCTGCTTGCT
pVvWOX6_CS TTTTTTAGGTTTTCTTTTATATTCTCCCTACCCAAAAAGAAAAGTATGCCTGCTTGCT

pVvWOX6_CH GATAAATAATTTTCCACCCTCTGTACTGAAAGCTCATCACCATATACAGACTGTCCTGG
pVvWOX6_CS GATAAATAATTTTCCACCCTCTGTACTGAAAGCTCATCACCATATACAGACTGTCCTGG

pVvWOX6_CH ATTCCCCCGGATACCTTAGGCCATAGACACTTAACTATGAAGAGATGGATCAAAACTCA
pVvWOX6_CS ATTCCCCCGGATACCTTAGGCCATAGACACTTAACTATGAAGAGATGGATCAAAACTCA

pVvWOX6_CH TGACCTCTGAAAGTTGAAGTCTTGCAGCTGATAATGTGGATATATTAGTAACCACAACA
pVvWOX6_CS TGACCTCTGAAAGTTGAAGTCTTGCAGCTGATAATGTGGATATATTAGTAACCACAACA

pVvWOX6_CH GATTGTTATAAGTAGAGATTATGATCTATGATGTCTAGATTCGCTATATTCCGTGCAT

pVvWOX6_CS GATTGTTATAAGTAGAGATTATGATCTATGATGTCTAGATTTCGCTATATTTCCGTGCAT

pVvWOX6_CH GGGGTTGCCGACAGCAGTAGCAAGAAAGAGTAGGCATATGGAACCAAAAATATTATCGTC
 pVvWOX6_CS GGGGTTGCCGACAGCAGTAGCAAGAAAGAGTAGGCATATGGAACCAAAAATATTATCGTC

pVvWOX6_CH CCTCAATAATTTTGAATATGAGTAAAGCAAGGCATGCATAATTCAGCCTCTAAATGTCTA
 pVvWOX6_CS CCTCAATAATTTTGAATATGAGTAAAGCAAGGCATGCATAATTCAGCCTCTAAATGTCTA

pVvWOX6_CH ATCCACAGGTTGGCCAAAGAGGACATTTTGTTCATGTGTTCCATGTCTAGAGAGGT
 pVvWOX6_CS ATCCACAGGTTGGCCAAAGAGGACATTTTGTTCATGTGTTCCATGTCTAGAGAGGT

pVvWOX6_CH TAGGCCATCTATGACCGGTAGCACAAGCTTCACAACATAATGATAACCAGTTGGACCGCA
 pVvWOX6_CS TAGGCCATCTATGACCGGTAGCACAAGCTTCACAACATAATGATAACCAGTTGGACCGCA

pVvWOX6_CH TCCTGATAAAAATTTCCAAATCTATTATCTGCATTTAATCAACAATAATATGTTCCAGA
 pVvWOX6_CS TCCTGATAAAAATTTCCAAATCTATTATCTGCATTTAATCAACAATAATATGTTCCAGA

pVvWOX6_CH ATGATTAGCGGACACAAAAAGGCTAGAAGCTCCATTTTCAAATGGGAACAAAAAAA
 pVvWOX6_CS ATGATTAGCGGACACAAAAAGGCTAGAAGCTCCATTTTCAAATGGGAACAAAAAAA

pVvWOX6_CH -AAAAGGGGGAGGAAATGAAGGAAAAGGATAAAGAATGAGAGAGAAAGATGGGGTTGT
 pVvWOX6_CS GAAAAGGGGGAGGAAATGAAGGAAAAGGATAAAGAATGAGAGAGAAAGATGGGGTTGT
 *** *****

pVvWOX6_CH GTCAAGGTTGAAAGGAAGTATACAAAGTGAAGTAGTAATAGTGTAGTGTGGGAGGAGAA
 pVvWOX6_CS GTCAAGGTTGAAAGGAAGTATACAAAGTGAAGTAGTAATAGTGTAGTGTGGGAGGAGAA

pVvWOX6_CH GAGGCAAAGAAGCAAACAACACTACAGGTCATAATATGGTCACGTCGTTGTTATCCCCGC
 pVvWOX6_CS GAGGCAAAGAAGCAAACAACACTACAGGTCATAATATGGTCACGTCGTTGTTATCCCCGC

pVvWOX6_CH CTTCCAATAACTCCCAGAATTCACGCTTTGTATGCTCCCCCTCTGCTTTTGTCTTTGTCC
 pVvWOX6_CS CTTCCAATAACTCCCAGAATTCACGCTTTGTATGCTCCCCCTCTGCTTTTGTCTTTGTCC

pVvWOX6_CH TTGTTACTACATACCCCGTCTCTCACAATTCATAAATAAGAGACCATGGTCAACCTAC
 pVvWOX6_CS TTGTTACTACATACCCCGTCTCTCACAATTCATAAATAAGAGACCATGGTCAACCTAC

pVvWOX6_CH TATATTCCTTGTTCCTTTTCACTTTTCTCTGTTTCAAACCAGAACTCTTCTTTCTCC
 pVvWOX6_CS TATATTCCTTGTTCCTTTTCACTTTTCTCTGTTTCAAACCAGAACTCTTCTTTCTCC

pVvWOX6_CH ATTTAATCTCTCATTCTTTCTTGTCCACTTTACACCTCTGAAGCTCTCAACGCCCTCT
 pVvWOX6_CS ATTTAATCTCTCATTCTTTCTTGTCCACTTTACACCTCTGAAGCTCTCAACGCCCTCT

pVvWOX6_CH TCTTGTCCACTCTACTACCCATTTCCCTACGAAGCACACTCTTAGTACCATGTGGACG
 pVvWOX6_CS TCTTGTCCACTCTACTACCCATTTCCCTACGAAGCACACTCTTAGTACCATGTGGACG

-1

Percentage of identity between the two sequences: 98.8%.

pVvWOX9

pVvWOX9_CH CCTTTCTCTGACTTTATTCGCTCCATCTTCACATGCACTCCCCCTTTTCTTTTTTCT
 pVvWOX9_CS CCTTTCTCTGACTTTATTCGCTCCATCTTCACATGCACTCCCCCTTTTCTTTTTTCT

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pVvWOX9_CH      CTTCTTTATTCACCTCGATATATGTCACATTTACCCGGTTAATTCCTTATTGCTATGTCGC
pVvWOX9_CS      CTTCTTTATTCACCTCGATATATGTCACATTTACCCGGTTAATTCCTTATTGCTATGTCGC
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pVvWOX9_CH      CGACATACGTCCATGATCTAATTCATTATGCTACAAATCAAGAAGGGATTAATTCATA
pVvWOX9_CS      CGACATACGTCCATGATCTAATTCATTATGCTACAAATCAAGAAGGGATTAATTCATA
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pVvWOX9_CH      ATGGCTTGAACATAAAGAACTAGAAAAGTGCACGACTAGTTAAAAAAGCCTTCTCCCCCGC
pVvWOX9_CS      ATGGCTTGAACATAAAGAACTAGAAAAGTGCACGACTAGTTAAAAAAGCCTTCTCCCCCGC
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pVvWOX9_CH      TACATGCAACACAAATAACAGGCACGTAGCAAGAGGCAACATGCTCGGCCACCACCACCA
pVvWOX9_CS      TACATGCAACACAAATAACAGGCACGTAGCAAGAGGCAACATGCTCGGCCACCACCACCA
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pVvWOX9_CH      ACAATTCATTGACTATAACATCAACTTTTTCTTAAAGGTTGAATTTTTAGTCTTTTACA
pVvWOX9_CS      ACAATTCATTGACTATAACATCAACTTTTTCTTAAAGGTTGAATTTTTAGTCTTTTACA
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pVvWOX9_CH      TAAATGATTAACATTTGTTCTCACAAAAAATGTGATCAGCCTACATGGTACCAGTACCAT
pVvWOX9_CS      TAAATGATTAACATTTGTTCTCACAAAAAATGTGATCAGCCTACATGGTACCAGTACCAT
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pVvWOX9_CH      GTCCACACCCTACCTGAAATTTACGCCACACCAATATTTGCCTCGCATACTATGTCA
pVvWOX9_CS      GTCCACACCCTACCTGAAATTTACGCCACACCAATATTTGCCTCGCATACTATGTCA
*****

pVvWOX9_CH      CTTTTATAACATTCACACTGCACTTGTTCATCTGCAATATTAATGTAGCTTAGTTTGAA
pVvWOX9_CS      CTTTTATAACATTCACACTGCACTTGTTCATCTGCAATATTAATGTAGCTTAGTTTGAA
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pVvWOX9_CH      ATTTTTAAATGATTGAAGAAATTTGGCCTCCACCGCCATCAAATTGATGTCGTTGCCATA
pVvWOX9_CS      ATTTTTAAATGATTGAAGAAATTTGGCCTCCACCGCCATCAAATTGATGTCGTTGCCATA
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pVvWOX9_CH      ACCACAATTGTGCCATCACCATCATCAGCTCCATCTCTATCTCTAGCGGCATTTTGAGTG
pVvWOX9_CS      ACCACAATTGTGCCATCACCATCATCAGCTCCATCTCTATCTCTAGCGGCATTTTGAGTG
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pVvWOX9_CH      TCCCATTGACTTGTAATCATCTGCTTTACCAAATTTTCTCCTCACAAAATGTTTAAATT
pVvWOX9_CS      TCCCATTGACTTGTAATCATCTGCTTTACCAAATTTTCTCCTCACAAAATGTTTAAATT
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pVvWOX9_CH      TGTGGGTCAAACATCTCGATGTGAAAACCTTTGAAAACGAGGAAGAGGTCTTAATGAT
pVvWOX9_CS      TGTGGGTCAAACATCTCGATGTGAAAACCTTTGAAAACGAGGAAGAGGTCTTAATGAT
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pVvWOX9_CH      TTTTCTGATTAGGAGACGACTGAAAGACCAGCTAATAGGAGTCAACCAACAATTAATT
pVvWOX9_CS      TTTTCTGATTAGGAGACGACTGAAAGACCAGCTAATAGGAGTCAACCAACAATTAATT
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pVvWOX9_CH      GATTGAAAAATATTCAAATATAACAACATTACTGAATTTTAAATATATAGTACTTCATTA
pVvWOX9_CS      GATTGAAAAATATTCAAATATAACAACATTACTGAATTTTAAATATATAGTACTTCATTA
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pVvWOX9_CH      ATCCTACTCGTTTCATAAGTCTTCACCAATATTCGTTTGATAGGGTTAATATCCCACTG
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pVvWOX9_CH      TTTTATTGGTAGTACCATTTGATAAAAAAATGCTATTTCTTGTCGCAACATTTACAAT
pVvWOX9_CS      TTTTATTGGTAGTACCATTTGATAAAAAAATGCTATTTCTTGTCGCAACATTTACAAT
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pVvWOX9_CH      AAAGCTAGTAGAACAAATTGAGAAAGGGAGTGCACATTTTCTCATTTAATTGGGATTTA
pVvWOX9_CS      AAAGCTAGTAGAACAAATTGAGAAAGGGAGTGCACATTTTCTCATTTAATTGGGATTTA
*****

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pVvWOX9_CH      ATTAATTTTGATTTTGAATTTT-----TTTTTTTTTTGTTTAAGGAAAGAAAATA
pVvWOX9_CS      ATTAATTTTGATTTTGAATTTTTTTTTTTTTTTTTTTTTTTTTTTTAAAGGAAAGAAAATA
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pVvWOX9_CH      AAAGAAGAGGAAGAAGAAGAGGCCCTCGAGTCAATCCAAAGCCCACCTTTGCCAAAATA
pVvWOX9_CS      AAAGAAGAGGAAGAAGAAGAGGCCCTCGAGTCAATCCAAAGCCCACCTTTGCCAAAATA
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pVvWOX9_CH      AACCAAACTCGCAATTACTGACCCACCACCTCTTTCCAATCAAACCCCTACAAGGCTCCT
pVvWOX9_CS      AACCAAACTCGCAATTACTGACCCACCACCTCTTTCCAATCAAACCCCTACAAGGCTCCT
*****

pVvWOX9_CH      TGACTTTCAAACACCCCCACCCCATTTATTCCTGCAACAACCTCTTCCATTAGAATAAT
pVvWOX9_CS      TGACTTTCAAACACCCCCACCCCATTTATTCCTGCAACAACCTCTTCCATTAGAATAAT
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pVvWOX9_CH      CCCACACTTATATCTACCCTTCACCCCTCCCATTAATACCACTGCAAGCAAACCAAAGTC
pVvWOX9_CS      CCCACACTTATATCTACCCTTCACCCCTCCCATTAATACCACTGCAAGCAAACCAAAGTC
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pVvWOX9_CH      ATGAGCAAGGGAATCCTCCCATGGAACAATGAATAGGAGACAAACTCATCAGAGCAG
pVvWOX9_CS      ATGAGCAAGGGAATCCTCCCATGGAACAATGAATAGGAGACAAACTCATCAGAGCAG
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pVvWOX9_CH      CCCACCTCTCTAAAGCTATAAAACCCACTCCACTCCGCACCACCCCCTTTTGCATTAAGA
pVvWOX9_CS      CCCACCTCTCTAAAGCTATAAAACCCACTCCACTCCGCACCACCCCCTTTTGCATTAAGA
*****

pVvWOX9_CH      CCCCTTCTCTGTCTCCTCTGATCAAGATTCTAATCTAGCCCAGCATATATGCTTTCCA
pVvWOX9_CS      CCCCTTCTCTGTCTCCTCTGATCAAGATTCTAATCTAGCCCAGCATATATGCTTTCCA
*****

pVvWOX9_CH      TGTTCCCTTTGCTTCTCGTCCGGGGGAATTGGCTTGTACTTTGAGTAGTCCACAAGCATT
pVvWOX9_CS      TGTTCCCTTTGCTTCTCGTCCGGGGGAATTGGCTTGTACTTTGAGTAGTCCACAAGCATT
*****

pVvWOX9_CH      TCAGTTTTAATGCTAAACTGTAAGGAAGGGATGGGAGTGTACTCTCCTTCTTACCTTTAT
pVvWOX9_CS      TCAGTTTTAATGCTAAACTGTAAGGAAGGGATGGGAGTGTACTCTCCTTCTTACCTTTAT
*****

pVvWOX9_CH      ATTTACTTTCATTTCCCTTCTGTTTATCATCTCACAGGCGATTCTGTTGTGGGTTTTG
pVvWOX9_CS      ATTTACTTTCATTTCCCTTCTGTTTATCATCTCACAGGCGATTCTGTTGTGGGTTTTG
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pVvWOX9_CH      TCAATTTTTTTATTATGGGTTTTATTATTAGTATTATTATTTTTATTTTATTCTTTGGG
pVvWOX9_CS      TCAATTTTTTTATTATGGGTTTTATTATTAGTATTATTATTTTTATTTTATTCTTTGGG
*****

pVvWOX9_CH      AGATGGGAAAGACTGTTTATTAATTGAAATAAACTGAACACAGGGGTAGGTGAGGAGGCT
pVvWOX9_CS      AGATGGGAAAGACTGTTTATTAATTGAAATAAACTGAACACAGGGGTAGGTGAGGAGGCT
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pVvWOX9_CH      ATAAGAAGAGATGTGATGTTGGCTAGAGGCTTTCAGTACCAAAAACAAGGCAACAAAA
pVvWOX9_CS      ATAAGAAGAGATGTGATGTTGGCTAGAGGCTTTCAGTACCAAAAACAAGGCAACAAAA
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pVvWOX9_CH      GGGCTTTGCTCCGTTGTTGTTGTTTCTCTTCTGGTTGGCTACTTTAGATATTTCATATCT
pVvWOX9_CS      GGGCTTTGCTCCGTTGTTGTTGTTTCTCTTCTGGTTGGCTACTTTAGATATTTCATATCT
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pVvWOX9_CH      ACATAGCTGCTGGTCTGCCCTCCCATCATCATCATC
pVvWOX9_CS      ACATAGCTGCTGGTCTGCCCTCCCATCATCATCATC
*****

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Percentage of identity between the two sequences: 99.2%.

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pVvWOX13C_CS CATGGATCTTCATGTGTGGTTTCAGTCATGATGCAGGCCTAACCTTTAGTGAAGCACTAA

pVvWOX13C_CH TAGAAGGTGGATGTCACTTCACCGCAATTTGACTGAAGCAGGCTAAAAGAGTGAATTAGC
pVvWOX13C_CS TAGAAGGTGGATGTCACTTCACCGCAATTTGACTGAAGCAGGCTAAAAGAGTGAATTAGC

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pVvWOX13C_CS AGCTCTAGATCCAAAGAAACAGTGGAAAGTAGGTGGAAAAGCTAGAGACAAAAAGATAT

pVvWOX13C_CH TGAAAAGAAACATCTTTTGAAGATCTGCCACTAGCTTTAGAAATCTTGTGGAATCCGCAA
pVvWOX13C_CS TGAAAAGAAACATCTTTTGAAGATCTGCCACTAGCTTTAGAAATCTTGTGGAATCCGCAA

pVvWOX13C_CH GAAATCGTAGAAAAATTGTCCACTTCGGACTATTGGGATAGCTATTTGAGGCTCAACAT
pVvWOX13C_CS GAAATCGTAGAAAAATTGTCCACTTCGGACTATTGGGATAGCTATTTGAGGCTCAACAT

pVvWOX13C_CH GCCCGTCTCTAATTGTGTAGATTGGCGTTAGGAGTCATGTTAGGTACACCAAATTGTCC
pVvWOX13C_CS GCCCGTCTCTAATTGTGTAGATTGGCGTTAGGAGTCATGTTAGGTACACCAAATTGTCC

pVvWOX13C_CH AATCCAAGGAAGAAAAACAAGACATACTGACGCCACATATCCCATTTTGAATGGTGTATC
pVvWOX13C_CS AATCCAAGGAAGAAAAACAAGACATACTGACGCCACATATCCCATTTTGAATGGTGTATC

pVvWOX13C_CH ACCACCATCCCCACCCCACTGTAGTCCCCTCACAATC- AACACTTCCTTCTCCAAACC
pVvWOX13C_CS ACCACCATCCCCACCCCACTGTAGTCCCCTCACAATC- AACACTTCCTTCTCCAAACC

pVvWOX13C_CH CTTAGCAGGAATCCTACTGTGGCCAACTGTGTAATAAGAAGATTAGAAAAACACGAGT
pVvWOX13C_CS CTTAGCAGGAATCCTACTGTGGCCAACTGTGTAATAAGAAGATTAGAAAAACACGAGT

pVvWOX13C_CH TGGGCTCAGAGACAGACCGAGTTATTGAGGGTGGATGGTGA- GATGGAGGAGTACATCTG
pVvWOX13C_CS TGGGCTCAGAGACAGACCGAGTTATTGAGGGTGGATGGTGA- GATGGAGGAGTACATCTG

pVvWOX13C_CH CA- - - - - CATGCCCATGCCATGTGCGTCATGTTCCACATCTTCACTTTCAAACAATAT
pVvWOX13C_CS CA- CATGCCCATGCCATGTGCGTCATGTTCCACATCTTCACTTTCAAACAATAT
** *****

pVvWOX13C_CH AATGATTAATCAGAATAAGGTGAATAGCTATAGTTGAAACTTGAACCAGAACACTTGTG
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pVvWOX13C_CS AGCCCTGCAGACGCGTCAGAGACCAACTCCCCTCCCCCATTCTAATTTCAAAGGGGTT

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pVvWOX13C_CS TAATCACATTTAGTCTAATCAATGACCCACCCCATGACCCACCCCAATAGTATAAACACA

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pVvWOX13C_CS CCATTAATCACCTGCTCCGCCCCCTCTCCATGCCCCACTACTTCCACATATCATTAGTA

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pVvWOX13C_CS TGTATATTTTTTTATTTCTTAAACCCACATGGACATGATGGGACGCTTGGCTTTGAATG

pVvWOX13C_CH GGGGCCAATGAACATAAACGAGGGTACATGGAGTGGGGTGGTGGTGAGGAGCAGAGGATG
pVvWOX13C_CS GGGGCCAATGAACATAAACGAGGGTACATGGAGTGGGGTGGTGGTGAGGAGCAGAGGATG

pVvWOX13C_CH AGGTTTTGATTGAGAGACGTGGGAAGCGTGGTGTCCCATCGTATCCAGGCCAATTTTAC
pVvWOX13C_CS AGGTTTTGATTGAGAGACGTGGGAAGCGTGGTGTCCCATCGTATCCAGGCCAATTTTAC

pVvWOX13C_CH AAAGACACAAGCCCTGTGTATCTTTGAATATTACTTGCATAATATCGTGATATTTGAGT
pVvWOX13C_CS AAAGACACAAGCCCTGTGTATCTTTGAATATTACTTGCATAATATCGTGATATTTGAGT

pVvWOX13C_CH TCTGCAATCAAGAATGGTCCAGCTGCATGGCAAAGTGAATCTAAGTTCTCAAAGCCCT
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pVvWOX13C_CH TATAAAATAATATTAACCTTATGTGTGTTTTTATTTTATTTTATTTTATTTTATTT
pVvWOX13C_CS TATAAAATAATATTAACCTTATGTGTGTTTTTATTTTATTTTATTTTATTTTATTT

pVvWOX13C_CH TATTTTATGAGAATTTAGAAAATAAAAACTAAAAATAAAAAATAAATAAAAAATTAATA
pVvWOX13C_CS TATTTTATGAGAATTTAGAAAATAAAAACTAAAAATAAAAAATAAATAAAAAATTAATA

pVvWOX13C_CH TATGGTAGGTTTTAAGTGTGAGTGCCTGTGTGTTTTTTTTTGGAAAGATTGATGTGGGTGTT
pVvWOX13C_CS TATGGTAGGTTTTAAGTGTGAGTGCCTGTGTGTTTTTTTTTGGAAAGATTGATGTGGGTGTT

pVvWOX13C_CH TTATCATGAACCGAGAAAATGGACGTGTGAAAACGCGCATGAGACACATGCCCATGCTAA
pVvWOX13C_CS TTATCATGAACCGAGAAAATGGACGTGTGAAAACGCGCATGAGACACATGCCCATGCTAA

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*****
pVvWOX13C_CH   AGTACGCCCCAGGAGGAGAGTACACTAACATACACCATCTTTTTCGTGGTTTCCTTTTTA
pVvWOX13C_CS   AGTACGCCCCAGGAGGAGAGTACACTAACATACACCATCTTTTTCGTGGTTTCCTTTTTA
*****

pVvWOX13C_CH   CCTTTTGGTGTGTGTAAACACTACTCAGTGCTGACTTTGTTAGAGAGATGGAGAGAGAGT
pVvWOX13C_CS   CCTTTTGGTGTGTGTAAACACTACTCAGTGCTGACTTTGTTAGAGAGATGGAGAGAGAGT
*****

pVvWOX13C_CH   AACGAGAGCGAGAGAGGAGGAGAAGAAGAGAGT
pVvWOX13C_CS   AACGAGAGCGAGAGAGGAGGAGAAGAAGAGAGT
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Percentage of identity between the two sequences: 98.9%.

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pVvWOX4_CS                          GCCAATCAGTGAAGAAGAAGC-----
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-732 ACTFTPPCA1                    CAATBOX1                                -673
pVvWOX4_CH                          ACTCAAGACTTGATCATATATTGTGTGAAAAGACAATAAGATAAATTTACCCCATGTAAAA
pVvWOX4_CS                          -----TGTGAAAAGACAATAAGATAAATTTACCCCATGTAAAA
*****

-592                                -533
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pVvWOX4_CS                          ACAAAAATGAGATGAAAAGTGTGAGGGTTGATGGGTTTATACTATTTGGGAAATTGGAGCTAC
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GTGANTG10

-492 GT1GMSCAM4                    -433
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ROOTMOTIFTAPOX1

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DOFCOREZM

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pVvWOX6_CS                          GAAAAGGGGGAGGAAATGAAGGAAAAAGGATAAAGAATGAGAGAGAAAGATGGGGTTGT
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GT1CONSENSUS

-235                                SURECOREATSULTR11                    -179
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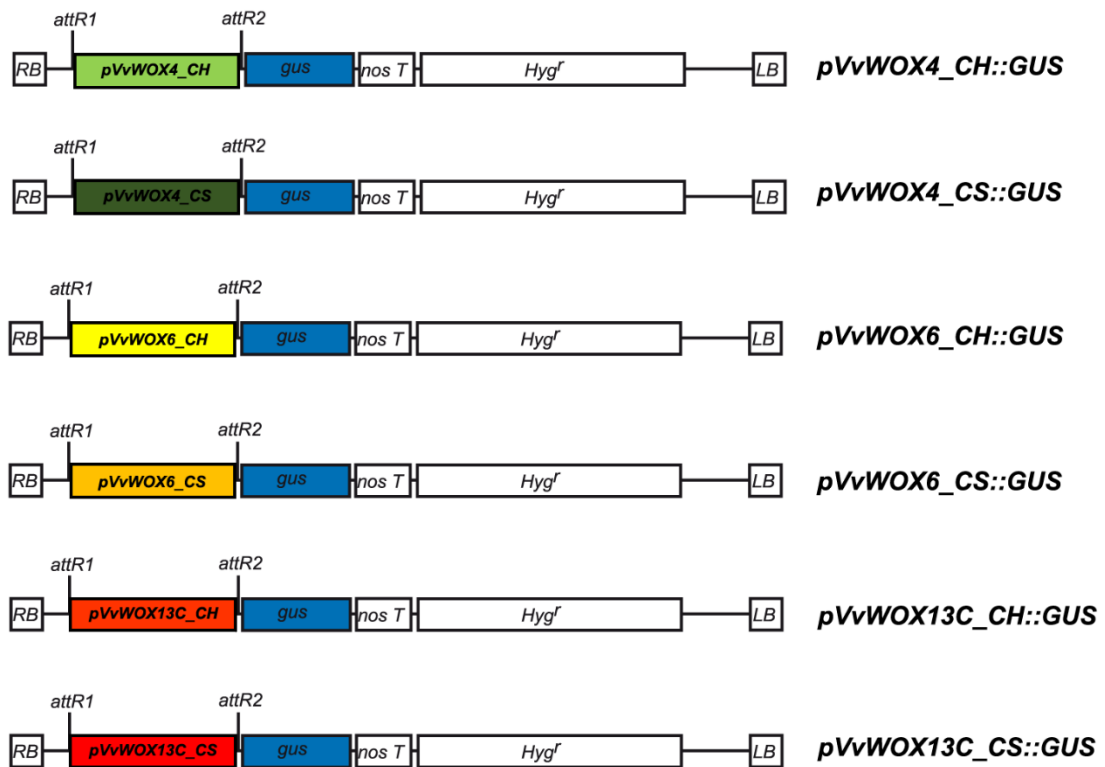
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-393                                MARTBOX                                -334
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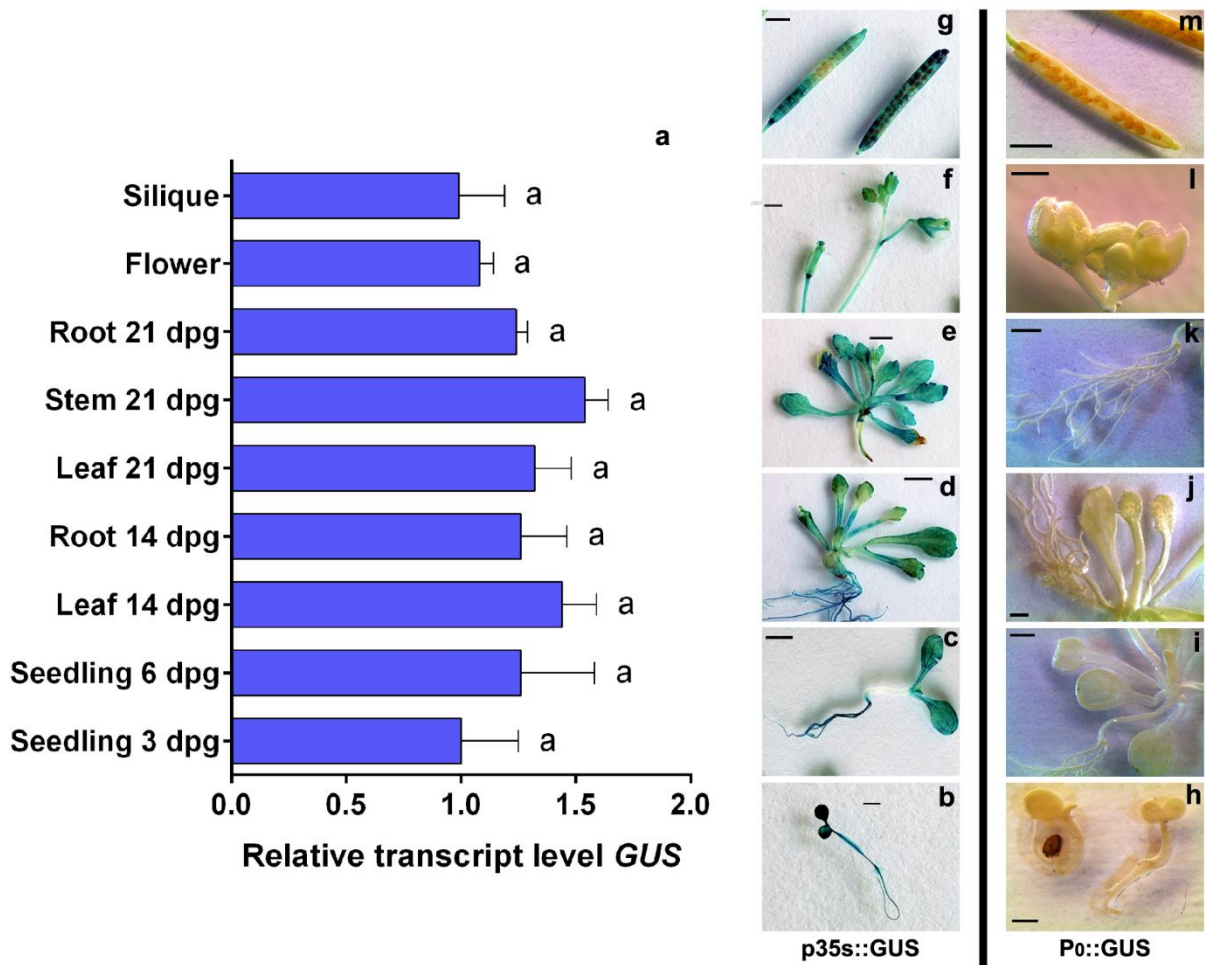
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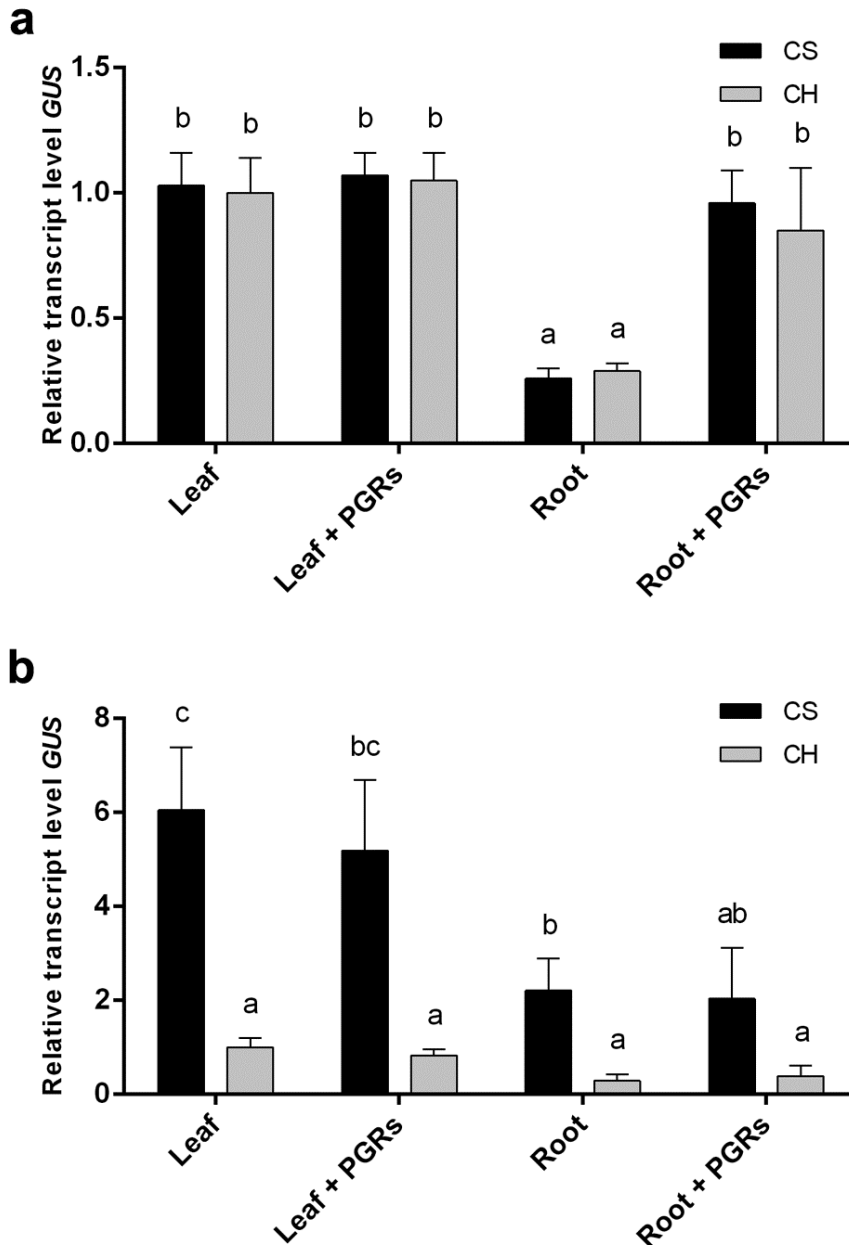
Supplementary Figure S2. Parts of the nucleotide sequences of *pVvWOX4*, *pVvWOX6* and *pVvWOX13C* isolated from ‘Chardonnay’ (CH) and ‘Cabernet Sauvignon’ (CS). The underlined sequences are transcription factor binding sites (TFBSs) present only in CH or CS and which were associated with point mutations and deletions. For details of TFBSs see Supplementary Table S1.



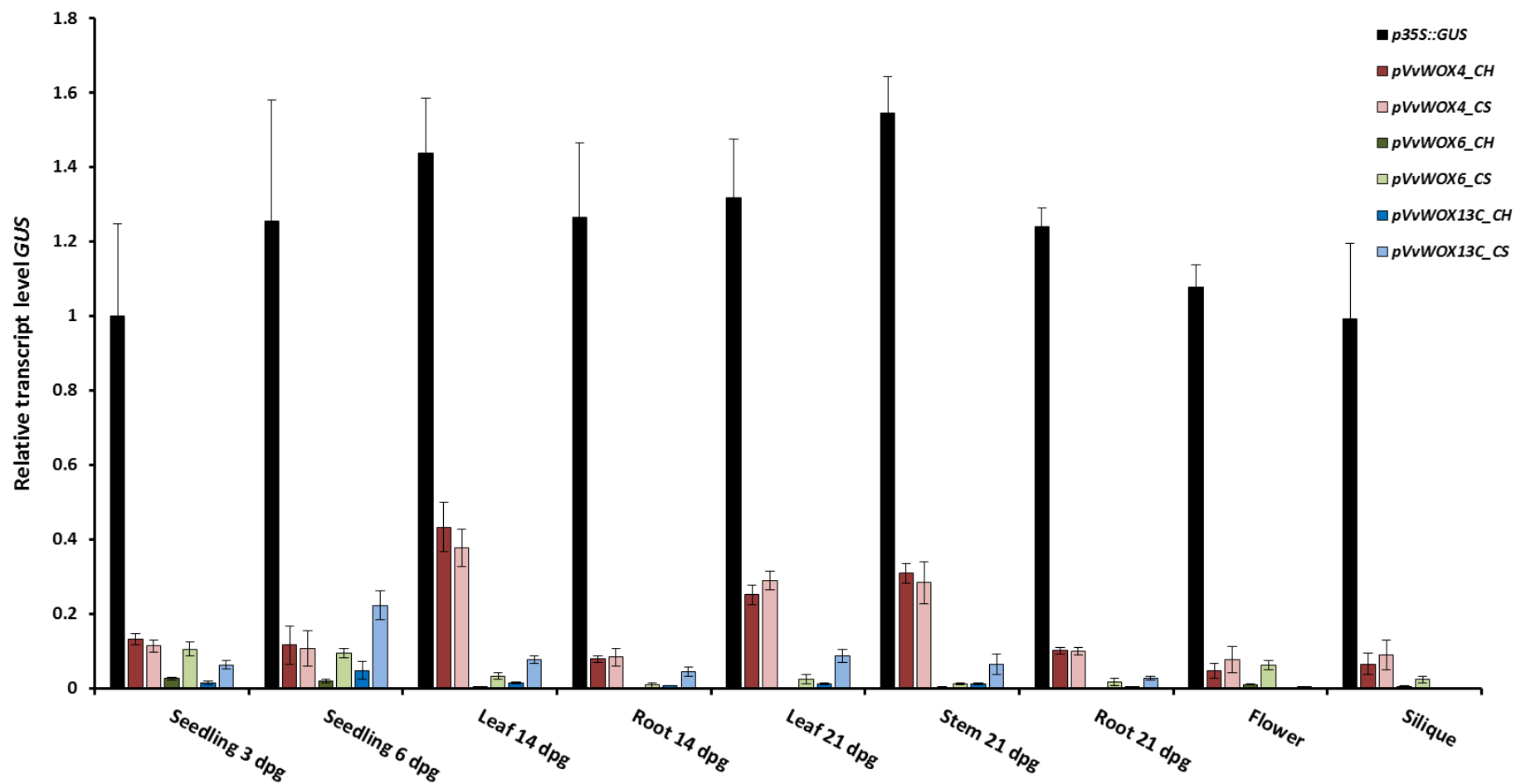
Supplementary Figure S3. Schematic representation of promoter::*GUS* fusion constructs inserted in expression vector pMDC164. RB: right border; attR1 and attR2: recombination sites for Gateway® Technology; *GUS*: β -glucuronidase gene; nosT: nos terminator; *Hyg^r*: Hygromycin resistance gene; LB: left border. *pVvWOX4_CH*: promoter of *VvWOX4* isolated from ‘Chardonnay’ (CH). *pVvWOX4_CS*: promoter of *VvWOX4* isolated from ‘Cabernet Sauvignon’ (CS). *pVvWOX6_CH*: promoter of *VvWOX6* isolated from ‘Chardonnay’ (CH). *pVvWOX6_CS*: promoter of *VvWOX6* isolated from ‘Cabernet Sauvignon’ (CS). *pVvWOX13C_CH*: promoter of *VvWOX13C* isolated from ‘Chardonnay’ (CH). *pVvWOX13C_CS*: promoter of *VvWOX13C* isolated from ‘Cabernet Sauvignon’ (CS).



Supplementary Figure S4. Characterisation of *p35S::GUS* and empty vector without promoter (*p0::GUS*) in *Arabidopsis thaliana*. a) Relative expression level of *GUS* under control of *p35S* in transgenic *Arabidopsis* organs collected in different developmental stages. Lowercase letters denote significant differences attested by Tukey's HSD test ($P < 0.05$). Data are expressed as means \pm SE ($n = 3$). b-m) Histochemical assay for *GUS* expression in transgenic *Arabidopsis* organs. Data shown are representative of three independent transgenic lines. Size bar = 2 mm.



Supplementary Figure S5. Relative expression level of *GUS* under control of promoters: a) *pVvWOX4_CH* and *pVvWOX4_CS*; b) *pVvWOX13C_CH* and *pVvWOX13C_CS* in transgenic *Arabidopsis*. The organs were collected in standard culture conditions (leaf and root) and after 8 days of culture with the plant growth regulators 2,4 D and BA (leaf + PGR and root + PGR). Lowercase letters denote significant differences attested by Tukey's HSD test ($P < 0.05$). Data are expressed as means \pm SE ($n = 3$).



Supplementary Figure S6. Relative expression level of *GUS* under control of promoters: *p35S*, *pVvWOX4_CH*, *pVvWOX4_CS*, *pVvWOX6_CH*, *pVvWOX6_CS*, *pVvWOX13C_CH* and *pVvWOX13C_CS* in transgenic *Arabidopsis*. All data refer to seedling at 3 dpg transformed with *p35S::GUS*. Data are expressed as means \pm SE (n = 3).