

**Supplemental Table 1** Primers used in this study

Gene name	Purpose	Primer
<i>TaVP</i>	<i>TaVP</i> expression	Forward: 5'-GGTTCTCTGCGATGACCATG Reverse: 5'-CAACATGATTGCGCAAGACC
Wheat tubulin	Internal standard in <i>TaVP</i> expression	Forward: 5'-CATGCTATCCCTCGTCTCGACCT Reverse: 5'-CGCACTTCATGATGGAGTTGTAT
<i>TaVP</i>	<i>TaVP</i> expression cassette	Forward: 5'-TTTCCATGGTGGCGGGCGGCGAT Reverse: 5'-TTTGGTCACCGGCAAACTAGAT
Tobacco tubulin	Internal standard in tobacco gene expression	Forward: 5'-GGAGGTTACCGAGGCTGA Reverse: 5'-GCATGTAGTCTTCCAAAG
<i>NtPIN1</i>	Tobacco auxin transport-associated gene	Forward: 5'-CGTGTATACAAAGTTCAAGCCA Reverse: 5'-ACCAGTGTTATCGGCAACG
<i>NtPIN1b</i>	Tobacco auxin transport-associated gene	Forward: 5'-CGTAGCCATTGTACAGGTCA Reverse: 5'-CAAGGCAATCAACATCCCAA
<i>NtPIN3</i>	Tobacco auxin transport-associated gene	Forward: 5'-CGCATTGGCTCTGAAAGAGT Reverse: 5'-AGGAGATTGGTACTTGATCG
<i>NtPIN3b</i>	Tobacco auxin transport-associated gene	Forward: 5'-GGCTGTGAGATTTCTAACTG Reverse: 5'-TGGTAATGCTATCAACATTCC
<i>NtPT</i>	Tobacco phosphate transporter gene	Forward: 5'-GCCATTCCATATCATCATTG Reverse: 5'-GACCTCATTCTCTTCCCAC
<i>NtPT1</i>	Tobacco phosphate transporter gene	Forward: 5'-CCATGGACTTCACTTGCTTG Reverse: 5'-ATTTCTCTTCCCCTTTCCC
<i>NtPT2</i>	Tobacco phosphate transporter gene	Forward: 5'-GGTTCGTGATCATGTACTCA Reverse: 5'-GACCTCATTCTCTTCCCAC
<i>NtPT3</i>	Tobacco phosphate transporter gene	Forward: 5'-AGGGTACTGGTTCACCGTG Reverse: 5'-ATTATAATTACACACTTGGTCTG
<i>NtPT4</i>	Tobacco phosphate transporter gene	Forward: 5'-GCACTACTTAGTACAGTGCC Reverse: 5'-GCATCACAAAGTCTACCTCC
<i>NtNRT1.1;1</i>	Tobacco nitrate transporter gene	Forward: 5'-CCGTTTCTTGGACAAGGCAG Reverse: 5'-TTCTCCTTGTACACATACCG
<i>NtNRT1.1;2</i>	Tobacco nitrate transporter gene	Forward: 5'-GGCTTCATTGACTCTTCT Reverse: 5'-CTTGTACACATACCGTCTCG
<i>NtNRT1.2;1</i>	Tobacco nitrate transporter gene	Forward: 5'-GGCTTCACTCACAGTATTTT Reverse: 5'-TTTCAGCAAGTCTCTTCTCC
<i>NtNRT1.2;2</i>	Tobacco nitrate transporter gene	Forward: 5'-GGCACTAACGTTGTAATCAAC Reverse: 5'-AATTCAATCCCCATTTTCAGC
<i>NtNRT2.1</i>	Tobacco nitrate transporter gene	Forward: 5'-GGACGTGGATCTTTGTTCTT Reverse: 5'-TTCTCGGCGAACTTCAAGC
<i>NtNRT2.2</i>	Tobacco nitrate transporter gene	Forward: 5'-GCTGCAACAAATTACAGGAC Reverse: 5'-ATTA ACTACTCACACTTGGG

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GATTCCTGCAGAACTGGAGCTGCAACCAATGTCATCTTTGG  
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CCATTGCCTTCAGTATTTTCCTCAGCTTCAGCCTCCCCGCG  
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AATTGCGACCGGTCTTGCCATTGATGCCTATGGCCCTATCA  
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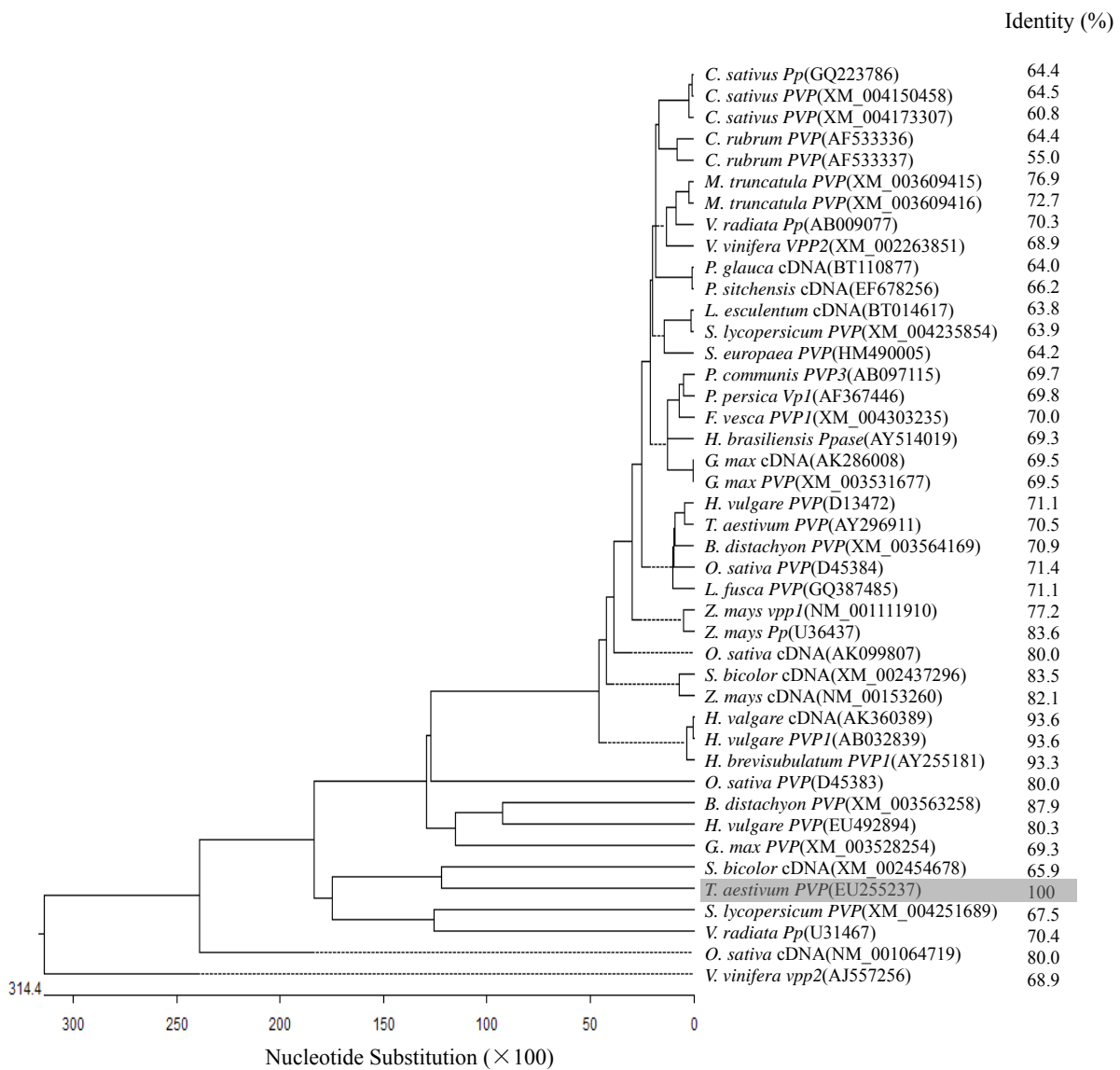
**Supplemental Fig. 1** Expressed sequence tag sequence of *TaVP*

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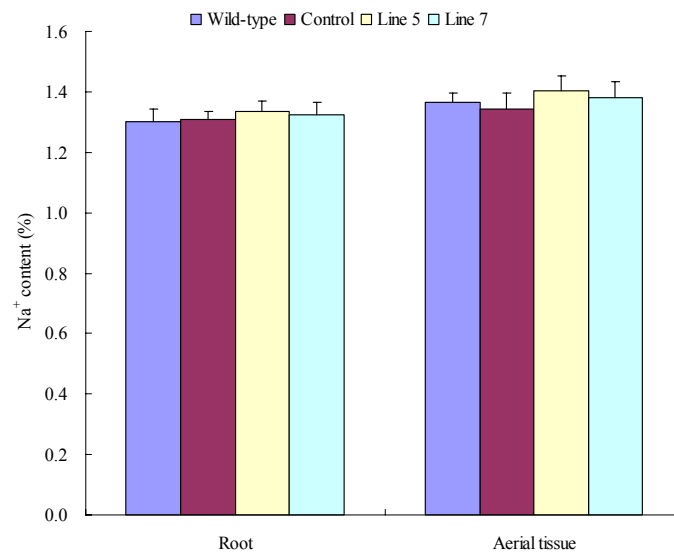
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Supplemental Fig. 2 Alignment results of TaVP and TVP1 at the amino acid level

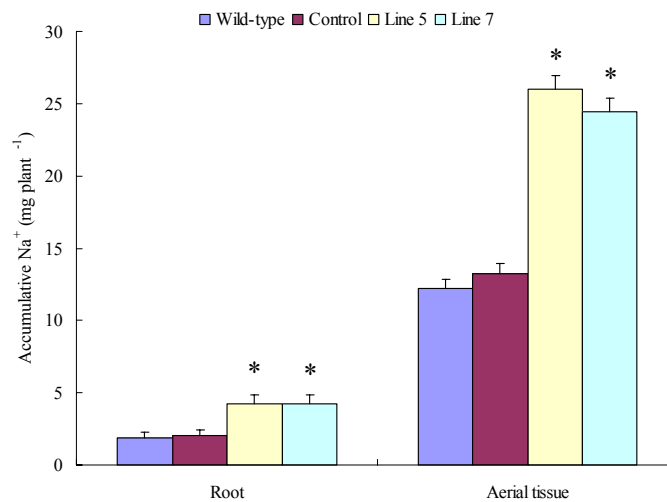


**Supplemental Fig. 3** Phylogenetic relationship between *TaVP* and its homologs in diverse plant species

**A**



**B**



**Supplemental Fig. 4** Na<sup>+</sup> contents in the wild-type, control, and *TaVP*-overexpressing tobacco plants under high salinity

**A.** The Na<sup>+</sup> contents. **B.** The accumulative Na<sup>+</sup> amounts. Control, transformed with an empty vector. Line 3 and Line 5, two *TaVP*-overexpressing transgenic lines. **A** and **B**, bars represent the SE of four independent assays and the symbol \* indicates the significant difference at P<0.01 compared with the wild-type.