

**Figure S1. Comparison of *V. vinifera* aquaporins from Pinot noir and Touriga nacional cultivars.** Alignment of deduced amino acid sequences of VvTnPIP1;4 (A), VvTnPIP2;1 (B), VvTnPIP2;3 (C), VvTnTIP1;1 (D), VvTnTIP2;2 (E), VvTnTIP4;1 (F) obtained from the present study (Touriga nacional) with the database variety (Pinot noir). Accession numbers of presented protein sequences are: VvPnPIP1;4 (CAO39626), VvTnPIP1;4 (KJ697714), VvPnPIP2;1 (CAN75442), VvTnPIP2;1 (KJ697715), VvPnPIP2;3 (CAO18152), VvTnPIP2;3 (KJ697716), VvPnTIP1;1 (CAO69259), VvTnTIP1;1 (KJ697717), VvPnTIP2;2 (CAO23095), VvTnTIP2;2 (KJ697718), VvPnTIP4;1 (CAO44039), VvTnTIP4;1 (KJ697719).

**A**

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

VvTnPIP1;4  
 VvPnPIP1;4  
 Clustal Consensus

160 170 180 190 200 210 220 230 240 250 260 270 280

VvTnPIP1;4  
 VvPnPIP1;4  
 Clustal Consensus

**B**

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

VvTnPIP2;1  
 VvPnPIP2;1  
 Clustal Consensus

160 170 180 190 200 210 220 230 240 250 260 270 280

VvTnPIP2;1  
 VvPnPIP2;1  
 Clustal Consensus

**C**

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

VvTnPIP2;3  
 VvPnPIP2;3  
 Clustal Consensus

160 170 180 190 200 210 220 230 240 250 260 270 280

VvTnPIP2;3  
 VvPnPIP2;3  
 Clustal Consensus

**D**

10 20 30 40 50 60 70 80 90 100 110 120 130

VvTnTIP1;1  
 VvPnTIP1;1  
 Clustal Consensus

140 150 160 170 180 190 200 210 220 230 240 250

VvTnTIP1;1  
 VvPnTIP1;1  
 Clustal Consensus

**E**

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

VvTnTIP2;2  
 VvPnTIP2;2  
 Clustal Consensus

160 170 180 190 200 210 220 230 240 250

VvTnTIP2;2  
 VvPnTIP2;2  
 Clustal Consensus

**F**

10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

VvTnTIP4;1  
 VvPnTIP4;1  
 Clustal Consensus

160 170 180 190 200 210 220 230 240 250

VvTnTIP4;1  
 VvPnTIP4;1  
 Clustal Consensus