

Additional file 5: Table S2. Biochemical properties of pE mutations detected in OWH TBEV isolates.

Mutation	Side-chain	Van-d.-Waals-Volume	Hydrophobicity^{\$}	Acidity	Acid dissociation constant
AS28:L→M (domain II)					
Leucine (L)	CH ₂ CH(CH ₃) ₂	124	3,8	neutral	-
Methionine (M)	CH ₂ CH ₂ SCH ₃	124	1,9	neutral	-
AS52:N→S (domain I)					
Asparagine (N)	CH ₂ CONH ₂	96	-3.5	neutral	-
Serine (S)	CH ₂ OH	73	-0.8	neutral	-
AS72 :A→S (domain I)					
Alanine (A)	CH ₃	67	1.8	neutral	-
Serine (S)	CH ₂ OH	73	-0.8	neutral	-
AS305:T→I (domain III)					
Threonine (T)	CH(OH)CH ₃	93	-0.7	neutral	-
Isoleucine (I)	CH(CH ₃)CH ₂ CH ₃	124	4.5	neutral	-
AS317:A→S (domain III)					
Alanine (A)	CH ₃	67	1.8	neutral	-
Serine (S)	CH ₂ OH	73	-0.8	neutral	-
AS346:R→A (domain III)					
Arginine (R)	CH ₂ CH ₂ CH ₂ NH-C(NH)NH ₂	143	-4.5	basic	12.48
Alanine (A)	CH ₃	67	1.8	neutral	-

^{\$}, hydrophobicity: < 0 'polar', > 0 'unpolar' residues; AS, amino acid residue of the pE chain.

W. R. Taylor: The classification of amino acid conservation. In: Journal of Theoretical Biology, 1986, 119: 205–218.