

Supplementary Material

## Molecular Characterization and Overexpression of *VpRPW8s* from *Vitis pseudoreticulata* Enhance Resistance to *Phytophthora capsici* in *Nicotiana benthamiana*

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### Supplementary Table

**Table S1: Gene and protein identity**

Genes	<i>RPW8-a</i>	<i>RPW8-b</i>	<i>RPW8-c</i>	<i>RPW8-d</i>	<i>RPW8-e</i>
<i>RPW8-a</i>	—	47.02/31.85	46.99/33.13	37.33/25.45	47.33/33.37
<i>RPW8-b</i>	47.02/31.85	—	83.66/71.22	65.3/55.38	83.17/70.50
<i>RPW8-c</i>	46.99/33.13	83.66/71.22	—	79.04/78.90	98.98/97.67
<i>RPW8-d</i>	37.33/25.45	65.3/55.38	79.04/78.90	—	78.56/78.04
<i>RPW8-e</i>	47.33/33.37	83.17/70.50	98.98/97.67	78.56/78.04	—

Commented [M1]: Please confirm the change made by editor.

Commented [A2R1]: We have confirmed the change.

Commented [M3]: Please confirm the red color is necessary or not.

Commented [A4R3]: We think it is necessary.

**Table S2: Gene and protein information**

Genes	GenBank ID	ORF length (bp)	Number of exon	Number of intron	Number of AA	Molecular weight(D)	Theoretical pI	hydropathicity
<i>VpRPW8-a</i>	KU365990	2478	5	4	825	93917.3	6.01	-0.088
<i>VpRPW8-b</i>	KU365991	2472	5	4	823	93041.59	5.81	-0.179
<i>VpRPW8-c</i>	KU365992	2448	5	4	815	92447.1	5.76	-0.178
<i>VpRPW8-d</i>	KX389173	1994	5	4	647	73622.88	5.66	-0.25
<i>VpRPW8-e</i>	KX389175	2448	5	4	815	92520.32	5.76	-0.175

**Table S3: Primer sequence**

Primer name	Primer sequence	Vector or purpose
<i>Va-F</i>	ATGGCAGTAACCGATTTATTC	gene clone
<i>Va-R</i>	CATACAGTAGAATGGAGGAGTAATCA	
<i>Va-qpcr-F</i>	CCATACCTCTTTCTGCTAACG	q-RT-PCR
<i>Va-qpcr-R</i>	TTTGGTTTCGTGGGACTC	

<i>Va-pet-F</i>	<b>GGGGTACC</b> ATGGCAGTAACCGATTTATTCC	pET30a
<i>Va-pet-R</i>	<b>CGGGATCC</b> GACTCCACCAGCCAGTCCAGATC	
<i>Va-gfp-F</i>	<b>CGGGATCC</b> ATGGCAGTAACCGATTTATTCC	pBI-121-GFP
<i>Va-gfp-R</i>	<b>GGGGTACC</b> CGCTCCACCAGCCAGTCCAGATC	
<i>Vb-F</i>	ATGGCTTTGGCGCTTGTTGGAGG	gene clone
<i>Vb-R</i>	CCAATGCTTACATGTACAGCTGCTTC	
<i>Vb-qpcr-F</i>	GACCTGCAAATTCCTGAAAC	q-RT-PCR
<i>Vb-qpcr-R</i>	AGTCAGTTCAACTGCGATAC	
<i>Vb-pet-F</i>	<b>GGGGTACC</b> ATGGCTTTGGCGCTTGTTGGAG	pET30a
<i>Vb-pet-R</i>	<b>CCGCTCGAG</b> TAGCAAATGCCAGTTGATAC	
<i>Vb-gfp-F</i>	<b>CGGGATCC</b> ATGGCTTTGGCGCTTGTTGGAG	pBI-121-GFP
<i>Vb-gfp-R</i>	<b>GGGGTACC</b> GTAGCAAATGCCAGTTGATAC	
<i>Vc-F</i>	ATGGCTTTGGAGCTTGTTGGAGG	gene clone
<i>Vc-R</i>	GAATATAATTAGGCGTCCGGTTCA	
<i>Vc-qpcr-F</i>	CTCGTCTTTATAACTAGGGCAG	q-RT-PCR
<i>Vc-qpcr-R</i>	CTCCAACAAGCTCCAAAGC	
<i>Vc-pet-F</i>	<b>GGGGTACC</b> ATGGCTTTGGAGCTTGTTGGAG	pET30a
<i>Vc-pet-R</i>	<b>CCGCTCGAGA</b> AAGCCAATTCAAGCTGATAAT	
<i>Vc-gfp-F</i>	<b>CGGGATCC</b> ATGGCTTTGGAGCTTGTTGGAG	pBI-121-GFP
<i>Vc-gfp-R</i>	<b>GGGGTACC</b> AAGCCAATTCAAGCTGATAAT	
<i>Vd-F</i>	ATGGCTTTGGAGCTTGTTGGAG	gene clone
<i>Vd-R</i>	TTATTCAGTTGCAAAAAGCTTGACC	
<i>Vd-qpcr-F</i>	TTATGGTTTCTGTGCTGCTG	q-RT-PCR
<i>Vd-qpcr-R</i>	TTATTCAGTTGCAAAAAGCTTG	
<i>Vd-pet-F</i>	<b>GGGGTACC</b> ATGGCTTTGGAGCTTGTTGGAG	pET30a
<i>Vd-pet-R</i>	<b>CCGCTCGAG</b> TTCAAGTTGCAAAAAGCTTGACC	
<i>Vd-gfp-F</i>	<b>CGGGATCC</b> ATGGCTTTGGAGCTTGTTGGAG	pBI-121-GFP
<i>Vd-gfp-R</i>	<b>GGGGTACC</b> CGTTCAGTTGCAAAAAGCTTGACC	
<i>Ve-F</i>	ATGTCTGCGGAGCTTGTTGGAG	gene clone
<i>Ve-R</i>	TTAAAGCCAATTCAAGTTGATA	
<i>Ve-qpcr-F</i>	AGAAGGGAGAAACCAACTCTG	q-RT-PCR
<i>Ve-qpcr-R</i>	TCCAACAAGCTCCGCAGA	
<i>Ve-pet-F</i>	<b>GGGGTACC</b> ATGGCTTTGGAGCTTGTTGGAG	pET30a
<i>Ve-pet-R</i>	<b>CCGCTCGAGA</b> AAGCCAATTCAAGCTGATAAT	
<i>Ve-gfp-F</i>	<b>CGGGATCC</b> ATGTCTGCGGAGCTTGTTGGAG	pBI-121-GFP
<i>Ve-gfp-R</i>	<b>GGGGTACC</b> CGAAGCCAATTCAAGTTGATAAT	
<i>V-EF1<math>\alpha</math>-F</i>	GAACTGGGTGCTTGATAGGC	q-RT-PCR
<i>V-EF1<math>\alpha</math>-R</i>	ACCAAAAATATCCGGAGTAAAAGA	
<i>Nb-EF1<math>\alpha</math>-F</i>	AGAGGCCCTCAGACAAAC	q-RT-PCR
<i>Nb-EF1<math>\alpha</math>-R</i>	TAGGTCCAAAGGTCACAA	

## Supplementary sequence

>VpRPW8-a ORF 1-2478

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>VpRPW8-b ORF 1-2472

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>VpRPW8-e ORF 1-2448

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