

**Table S2:** Homology comparison between *S. pimpinellifolium* NBS-LRRs and some cloned R genes in *Solanaceae*.

Gene name	Query Name Total	Species	Size	Pathogen	Sopim NBS-LRR hit	Identities	Chromosome	Subfamily	Cluster*
<i>Nrc1</i>	ABC26878	<i>Solanum lycopersicum</i>	888aa		Sopim01g090430.0. 1	100	1	CNL	singleton
<i>Rx</i>	CAB50786	<i>Solanum tuberosum</i>	937aa	Potato virus X	Sopim12g010660.0. 1	91	12	N	singleton
<i>Rx2</i>	CAB56299	<i>Solanum acaule</i>	938aa	Potato virus X	Sopim12g010660.0. 1	93	12	N	singleton
<i>Gpa2</i>	AF195939	<i>Solanum tuberosum</i>	912aa	<i>Globodera pallida</i> /PVX	Sopim12g010660.0. 1	93	12	N	singleton
<i>PSH-RGH6</i>	ABY61745	<i>Solanum tuberosum</i>	873aa	Potato cyst nematode	Sopim12g010660.0. 1	93	12	N	singleton
<i>Rpi-vnt1</i>	ADB85628	<i>Solanum medians</i>	860aa	Phytophthora infestans	Sopim09g092300.0. 1	86	9	CN	C9-1
<i>Rpi-blb2</i>	AAZ95005	<i>Solanum bulbocastanum</i>	1267aa	Phytophthora infestans	Sopim06g008450.0. 1	81	6	CNL	C6-1
<i>Rpi-bt1</i>	ACI16480	<i>Solanum bulbocastanum</i>	988aa	Phytophthora infestans	Sopim08g075630.0. 1	81	8	CNL	C8-2
<i>Rpi-blb3</i>	ACU65457	<i>Solanum bulbocastanum</i>	847aa	Phytophthora infestans	Sopim04g009660.0. 1	82	4	CNL	C4-6
<i>R2</i>	ADL59405	<i>Solanum schenckii</i>	844aa	Phytophthora infestans	Sopim04g009660.0. 1	82	4	CNL	C4-6
<i>R1</i>	AAU95638	<i>Solanum tuberosum</i>	514aa	Phytophthora infestans	Sopim05g007630.0. 1	41	5	CN	C5-1
<i>Gro1-4</i>	AAP44390	<i>Solanum tuberosum</i>	1136aa	Phytophthora infestans	Sopim07g055380.0.	82	7	NL	C7-5

			a		1				
<i>Mi-1</i>	AAC97933	Solanum lycopersicum	1257a	<i>Meloidogyne javanica</i>	Sopim06g008450.0.	91	6	CNL	C6-1
			a		1				
<i>Rpi-blb1/R</i>	RGA2_SOLBU	Solanum bulbocastanum	970aa	<i>Phytophthora infestans</i>	Sopim08g075640.0.	72	8	CNL	C8-2
<i>B</i>					1				
<i>R3a</i>	AAW48299	Solanum tuberosum	1282a	<i>Phytophthora infestans</i>	Sopim08g007630.0.	80	8	CNL	C8-2
			a		1				
<i>Tm-2</i>	AAQ10735	Solanum lycopersicum	861aa	Tobacco mosaic virus	Sopim09g018220.0.	95	9	CNL	singleto
					1				n
<i>NL25</i>	CAA08797	Solanum tuberosum	533aa		Sopim01g008800.0.	60	1	TNL	singleto
					1				n
<i>I2</i>	ABB00396	Solanum lycopersicum	242aa	<i>Fusarium oxysporum</i>	Sopim08g007630.0.	90	8	CNL	C8-2
					1				
<i>Bs4</i>	AAR21295	Solanum lycopersicum	1146a	<i>Xanthomonas campestris</i>	Sopim05g007850.0.	100	5	TNL	singleto
			a		1				n
<i>Hero</i>	CAD29729	Solanum lycopersicum	1293a	<i>Globodera rostochiensis</i>	Sopim04g008200.0.	80	4	CNL	C4-3
			a		1				
<i>RGA2</i>	AAP45188	Solanum bulbocastanum	940aa	<i>Phytophthora infestans</i>	Sopim08g075640.0.	69	8	CNL	C8-2
					1				
<i>RY-1</i>	CAC82812	Solanum tuberosum subsp. andigenum	1101a	Potato virus Y	Sopim11g011080.0.	85	11	TNL	C11-2
			a		1				
<i>NL27</i>	CAA08798	Solanum tuberosum	821aa	Potato leaf roll polverovirus	Sopim01g008800.0.	68	1	TNL	singleto
					1				n
<i>Sw5-a</i>	AAG31013	Solanum lycopersicum	1245a	Tospovirus	Sopim09g098130.0.	95	9	CN	C9-2
			a		1				
<i>Prf</i>	AAC49408	Solanum lycopersicum	1824a	<i>Pseudomonas syringae</i>	Sopim05g013280.0.	98	5	CN	C5-5

			a		1				
<i>Tm-2<sup>2</sup></i>	AAQ10736	<i>Solanum lycopersicum</i>	861aa	Tobacco mosaic virus	Sopim09g018220.0.	95	9	CNL	singleton
					1				
<i>Bs2</i>	AF202179	<i>Capsicum chacoense</i>	905aa	<i>Xanthomonas campestris</i>	Sopim02g027080.0.	66	2	CN	singleton
					1				
<i>N</i>	AAA50763	<i>Nicotiana glutinosa</i>	1144a	Tobacco mosaic virus	Sopim01g008800.0.	65	1	TNL	singleton
			a		1				

\*“C” refers to gene family, number after “C” refers to chromosome number, number after “-” refer to gene cluster number on that chromosome. For example, C9-1 represent the first gene cluster on chromosome 9.