

Supporting Tables S1-S4

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***Phytophthora infestans* RXLR effector AVR1 disturbs the growth of *Physcomitrium patens* without affecting Sec5 localization**

by

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Table S1. Sec5 gene IDs.

Gene	Code	Resource
PpSec5a	Pp1s41_289; Pp3c5_4060	Cossmoss.org
PpSec5b	Pp1s38_295; Pp3c1_7430	Cossmoss.org
PpSec5c	Pp1s18_342; Pp3c24_1100	Cossmoss.org
PpSec5d	Pp1s11_129; Pp3c11_13110	Cossmoss.org
AtSec5a	AT1G76850	Arabidopsis.org
AtSec5b	AT1G21170	Arabidopsis.org
StSec5-1	Sotub04g023510	Solgenomics.net
StSec5-2	Sotub12g024810	Solgenomics.net
ScSec5	P89102	Uniprot.org

Table S2. Primers used in this study.

Primer	Use	Sequence (5' > 3')	Nr
Sec5a-F	Cloning of Sec5a coding sequence for Y2H	CACCATGAGGGACGACGACGAG	2857
Sec5a-R	Cloning of Sec5a coding sequence for Y2H	CTAACCATCATGGAAGAGTCTTGAAC	E057
Sec5b-F	Cloning of Sec5b coding sequence for Y2H	CACCATGGCGATGCGACATGACG	2855
Sec5b-R	Cloning of Sec5b coding sequence for Y2H	TTATCTCAAGTCATCGTTATCTACATAGGC	E058
Sec5c-F	Cloning of Sec5c coding sequence for Y2H	CACCATGTCGACAGCGGCTCAG	2852
Sec5c-R	Cloning of Sec5c coding sequence for Y2H	CTATGACTCCGGGATGGGAGG	E059
Sec5d-F	Cloning of Sec5d coding sequence for Y2H	CACCATGGCGACGCGGGCGCC	2860
Sec5d-R	Cloning of Sec5d coding sequence for Y2H	CTATCTCAACTCATCGTTATCTACATAAATTTGAGG	E060
AVR1-F	AVR1 cloning	ATGTTTCGACCACGACAAGG	2072
Start-myc-F	Myc-Cer-AVR1/ Δ T cloning	CACCGCAGAATGGGGTTAATTAACGGTGAAC	E080
Myc-cer-R	Myc-Cer-AVR1/ Δ T cloning	CAGCTCCTCGCCCTTGCTCACGCTACCGTTCAAGTCTTCTC	E081
Cer-myc-F	Myc-Cer-AVR1/ Δ T cloning	GAGGAAGACTTGAACGGTAGCGTGAGCAAGGGCGAGGAGCTG	E082
Cer-AVR1-R	Myc-Cer-AVR1/ Δ T cloning	GGAACCTTGTCGTGGTCAACTTGACAGCTCGTCCATGCC	E083
AVR1-cer-F	Myc-Cer-AVR1/ Δ T cloning	GGCATGGACGAGCTGTACAAGTTCGACCACGACAAGGTTCC	E084
AVR1 Δ T-R-wistop	Myc-Cer-AVR1 cloning	TTACCTCCACTTCACAGCCCGTGCC	E085
AVR1-R-wistop	Myc-Cer-AVR1 Δ T cloning	TTAAAATGGTACCACAACATGTCC	E086
PIG1-locus-R	Genotyping AVR1 moss lines	CCCTCTGCCGACCCATATTTTC	E0114
AVR1-koz-F	Genotyping AVR1 moss lines and cloning of AVR1/ Δ T-myc	CACCGCAGAATGTTTCGACCACG	E0117
10myc-R	Cloning of AVR1/ Δ T-myc	GAAATTCGAGCCTAAGCACCGTTC	E0119
AVR1-F-gt	Genotyping AVR1 moss lines	ATGGGGTTAATTAACGGTGAACAAAAGC	E0120
AVR1-R-gt	Genotyping AVR1 moss lines	AAATGGTACCACAACATGTCCACCAAG	E0121
AVR1 Δ T-R-gt	Genotyping AVR1 moss lines	CCTCCACTTCACAGCCCGTG	E0122
T35S-F	Genotyping AVR1 moss lines	TGCTAAGGCAGGGTTGGTTACG	JK130
PpSEC5a_RNAi_F_XhoI	Cloning Sec5RNAi construct	CACCCTCGAGCCACCAATCAGCCGCCT	E049
PpSEC5a_RNAi_R_SalI	Cloning Sec5RNAi construct	AAAGTCGACCTCTGCTTGATCAACTCCACTCC	E050
PpSEC5b_RNAi_F_XhoI	Cloning Sec5RNAi construct	CACCCTCGAGAGCAGGACGAGGGAGA	E051
PpSEC5b_RNAi_R_SalI	Cloning Sec5RNAi construct	AAAGTCGACTTCCAGGTCGAGGCTCG	E052
PpSEC5c_RNAi_F_XhoI	Cloning Sec5RNAi construct	CACCCTCGAGCCTGCAAAAACACCATTGACGAT	E053
PpSEC5c_RNAi_R_SalI	Cloning Sec5RNAi construct	AAAGTCGACGAAAGCTCCAGATGAGGATCCTC	E054
PpSEC5d_RNAi_F_XhoI	Cloning Sec5RNAi construct	CACCCTCGAGGAAGACGACGAAGAAGAGGAGC	E055
PpSEC5d_RNAi_R_SalI	Cloning Sec5RNAi construct	AAAGTCGACGTTTCTCGAAGCTCCCGCA	E056
PpSec5a_qPCR_F	qRT-PCR Sec5RNAi lines	CGGTCAAACCTTCCGAGTACG	2772
PpSec5a_qPCR_R	qRT-PCR Sec5RNAi lines	TATGCCTCCATCACTGCCAAAT	2773
PpSec5b_qPCR_F	qRT-PCR Sec5RNAi lines	GGGGCAACGCCTATGTAGA	2768
PpSec5b_qPCR_R	qRT-PCR Sec5RNAi lines	ACACAGCCAGCTATTGCCTT	2769
PpSec5c_qPCR_F	qRT-PCR Sec5RNAi lines	ATGTCACAGGAGGAAATACAGG	E0164
PpSec5c_qPCR_R	qRT-PCR Sec5RNAi lines	GTTTGAAGGTAGTCTGCAATGA	E0165
PpSec5d_qPCR_F	qRT-PCR Sec5RNAi lines	CTCCGTGGCAACCCCTCAA	2770
PpSec5d_qPCR_R	qRT-PCR Sec5RNAi lines	CCCTGTGAGGCCTTCAATTCT	2771
PpEF1a_F	qRT-PCR Sec5RNAi lines	AATCATACATTTACCTCGCC	2764
PpEF1a_R	qRT-PCR Sec5RNAi lines	GATCAGTGGGTAGAAGTGAC	2765

Table S3. Plasmids used in this study.

Plasmid	Usage	Source
pENTR-D-TOPO-AVR1	Cloning of AVR1 inducible expression vector	[15]
pENTR-D-TOPO-A-L	Cloning of AVR1 inducible expression vector	[15]
pENTR-D-TOPO-AVR1 Δ T	Cloning of AVR1 inducible expression vector	[15]
pENTR-D-TOPO-myc-Cer-AVR1	Cloning of AVR1 inducible expression vector	This study
pENTR-D-TOPO-myc-Cer-AVR1 Δ T	Cloning of AVR1 inducible expression vector	This study
pGWB20-AVR1-10myc	Cloning of AVR1 inducible expression vector	[15]
pGWB20-AVR1 Δ T-10myc	Cloning of AVR1 inducible expression vector	This study
pENTR-D-TOPO-AVR1-10myc	Cloning of AVR1 inducible expression vector	This study
pENTR-D-TOPO-AVR1 Δ T-10myc	Cloning of AVR1 inducible expression vector	This study
pPGX8	β -estradiol inducible expression	[30]
pPGX8-AVR1-myc	β -estradiol inducible AVR1 expression	This study
pPGX8-AVR1 Δ T-myc	β -estradiol inducible AVR1 Δ T expression	This study
pPGX8-myc-Cer-AVR1	β -estradiol inducible AVR1 expression	This study
pPGX8-myc-Cer-AVR1 Δ T	β -estradiol inducible AVR1 Δ T expression	This study
pENTR-D-TOPO-Sec5a	Cloning for yeast-two-hybrid assay	This study
pENTR-D-TOPO-Sec5b	Cloning for yeast-two-hybrid assay	This study
pENTR-D-TOPO-Sec5c	Cloning for yeast-two-hybrid assay	This study
pENTR-D-TOPO-Sec5d	Cloning for yeast-two-hybrid assay	This study
pDEST22-Sec5a	Yeast-two-hybrid assay	This study
pDEST22-Sec5b	Yeast-two-hybrid assay	This study
pDEST22-Sec5c	Yeast-two-hybrid assay	This study
pDEST22-Sec5d	Yeast-two-hybrid assay	This study
pDEST32-AVR1	Yeast-two-hybrid assay	[15]
pDEST32-AVR1 Δ T	Yeast-two-hybrid assay	[15]
pDEST32-A-L	Yeast-two-hybrid assay	[15]
pDEST32-myc-Cer-AVR1	Yeast-two-hybrid assay	This study
pDEST32-myc-Cer-AVR1 Δ T	Yeast-two-hybrid assay	This study
pGG626	Induced gene silencing in <i>P. patens</i>	[31]
pENTR-D-TOPO-Sec5RNAi	Gene silencing of all four <i>P. patens</i> homologs	This study
pGG626-Sec5RNAi	Gene silencing of all four <i>P. patens</i> homologs	This study

Table S4. *Physcomitrium patens* strains used in this study.

<i>P. patens</i> line	Representative clone(s)	Background strain	Reference
AVR1-myc/Sec5b-GFP	66, 127, 212	Sec5b-GFP	This study
AVR1-myc/Sec5d-GFP	147, 201, 208	Sec5d-GFP	This study
AVR1 Δ T-myc/Sec5b-GFP	5, 11, 224	Sec5b-GFP	This study
AVR1 Δ T-myc/Sec5d-GFP	27, 126, 148	Sec5d-GFP	This study
myc-Cer-AVR1/Sec5b-GFP	119, 125, 174	Sec5b-GFP	This study
myc-Cer-AVR1/Sec5d-GFP	9, 11, 26	Sec5d-GFP	This study
myc-Cer-AVR1 Δ T/Sec5b-GFP	27, 235, 422	Sec5b-GFP	This study
myc-Cer-AVR1 Δ T/Sec5d-GFP	3, 15, 18	Sec5d-GFP	This study
Sec6RNAi	6	Sec6-GFP/Scamp4-mCherry	[28]
Sec5RNAi	18, 107	WT, Gransden isolate	This study
Sec5RNAi	58	mCherry-Tua1	This study
WT, Gransden isolate			[34]
Sec5b-GFP	42	WT, Gransden isolate	[34]
Sec5d-GFP	39	WT, Gransden isolate	[34]
mCherry-Tua1		WT, Gransden isolate	T. Miki, unpublished