

Supplemental Data. Bernoux et al. (2008). RD19, an *Arabidopsis* Cysteine Protease Required for RRS1-R-Mediated Resistance, is Relocalized to the Nucleus by the *Ralstonia solanacearum* PopP2 Effector.

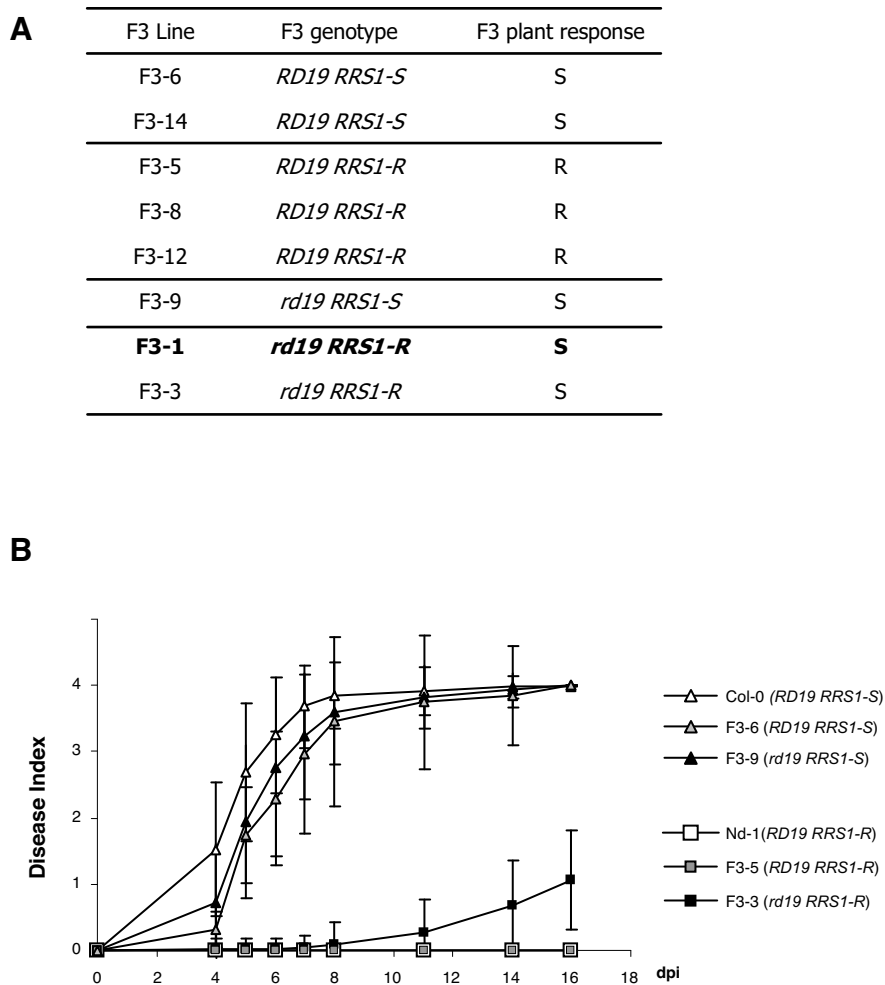


Figure S1. Genotyping and Phenotyping of F3 Families Segregating for *RD19/rd19* and *RRS1-S/RRS1-R*.

F3 families generated from a cross between the SALK_031088 line and Nd-1 accession were selected. Homozygous state of each allele was verified by PCR (A). Disease wilting symptoms (B) were scored as described in Figure 1B. For each F3 family, 50 plants were root-inoculated with the GMI1000 strain. This experiment was repeated three times and reproducible results were obtained.

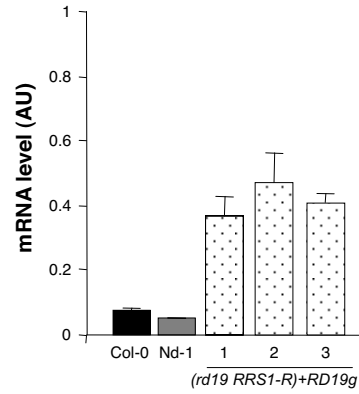


Figure S2. *RD19* Expression in Wild-Type Plants and in Three independent Transgenic *RD19g* Lines.

Relative expression levels were determined by Q-RT-PCR from cDNAs generated from the aerial parts of three unchallenged plants per genotype (Col-0 (*RD19 RRS1-S*); Nd-1 (*RD19 RRS1-R*); three transgenic *rd19* mutant lines (*rd19 RRS1-R*) complemented with the *RD19* genomic clone (*RD19g-1 to -3*)). Means and SD values were calculated from the results of two independent experiments (triplicate samples of three plants per genotype). AU, arbitrary units.

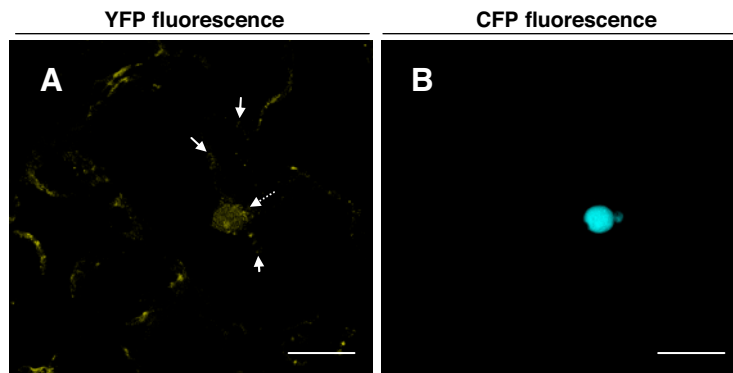


Figure S3. RD19-YFPv Subcellular Localization in *A. thaliana*.

Confocal images of *A. thaliana* epidermal cells, 16h after co-expression of P35S:RD19-YFPv with P35S:PopP2-CFP via particle bombardment. (A) RD19-YFPv is both detected in mobile vacuole-associated vesicles and in the nucleus (white and dashed arrows, respectively). (B) Nuclear localization of PopP2-CFP. Scale bar represents 20 μ m.

RD19	MD-RLKLYFSVFLSFFIV--SVSSSDVNDGDDLVIHQVVG-GAEPQVLTSEDHFSLFKR	56
RDL1	MDYHLRVLFVS-LIFVFV--SVS---VCGDEDVLIHQVVD-ETEPKVLSSDHFTLFKK	53
RDL2	MDRVVFFFLIAATLLAGSLGSTVISGEVTDGFVNP I HQVVP EENDEQLLNAEHHTLFKS	60
RD19	KFGKVYASNEEHYRFSVFKANLRRARRHQKLDPSATHGVTQFSDLTRSEFRKKHLGVR	116
RDL1	KFGKVYGSIEEHYRFSVFKANLLRAMRHQKMDPSARHGVTQFSDLTRSEFRKKHLGK	113
RDL2	KYEKTYATQVEHDHRFRVFKANLRRARRNQLLDPSAVHGVTQFSDLTPKEFRKFLGLKR	120
RD19	-GFKLPKDANKAPILPTENLPEDFDWRDHGAVTPVKNOGSCGSCWSFSATGALEGANFLA	175
RDL1	-GFKLPKDANQAPILPTQNLPEEFDWRDRGAVTPVKNOGSCGSCWSFSTGALEGAHFLA	172
RDL2	RGFRLPTDTQTAPILPTSDLPTEFDWREQAVTPVKNOGMCSCWSFSAI GALEGAHFLA	180
RD19	<u>TGKLVLSLSEQQLVDCDHECDPEEADSCDSCGNGGLMNSAFEYTLKTGGLMKEEDYPYTGK</u>	235
RDL1	<u>TGKLVLSLSEQQLVDCDHECDPEEEGSCDSCGNGGLMNSAFEYTLKTGGLMREKDYPTGT</u>	232
RDL2	<u>TKELVLSLSEQQLVDCDHECDPAQANS CDSCGSGGLMNAFEYALKAGGLMKEEDYPYTG</u>	240
RD19	<u>DGKTKLDKSKIVASVSNF SVISIDEEQIAANLVKNGPLAVAINAGYMQTYIGGVSCP YI</u>	295
RDL1	<u>DGGSCKLDRSKIVASVSNF SVSINEDQIAANLIKNGPLAVAINAAYMQTYIGGVSCP YI</u>	292
RDL2	<u>DHTACKFDKSKIVASVSNF SVVSSDEDQIAANLVQHGPLAIAINAMMQTYIGGVSCP YV</u>	300
RD19	<u>CTRRLN^HGVLLVGYGAAGYAPARFKEKPYWIIK^NSWGETWGENGFYKICKG-RNICGVDS</u>	354
RDL1	<u>CSRRLN^HGVLLVGYGSAGFSQARLKEKPYWIIK^NSWGESWGENGFYKICKG-RNICGVDS</u>	351
RDL2	<u>CSKSQD^HGVLLVGFSSGYAPIRLKEKPYWIIK^NSWGAMWGEHGYKICRPHNMCGMDT</u>	360
RD19	<u>MVSTVAATVSTTAH</u>	368
RDL1	<u>LVSTVAATTS----</u>	361
RDL2	<u>MVSTVAAVHTSPK-</u>	373

Figure S4. Comparison of the Deduced Amino Acid (aa) Sequences of RD19 (At4g39090) with RDL1 (At2g21430) and RDL2 (At4g16190).

RD19 and RDL2 are two closely RD19-related cysteine proteases from Arabidopsis. Putative RD19 peptidase unit (aa residues 134 to 362, according to the MEROPS database) is underlined. Predicted conserved protease catalytic residues are shaded.

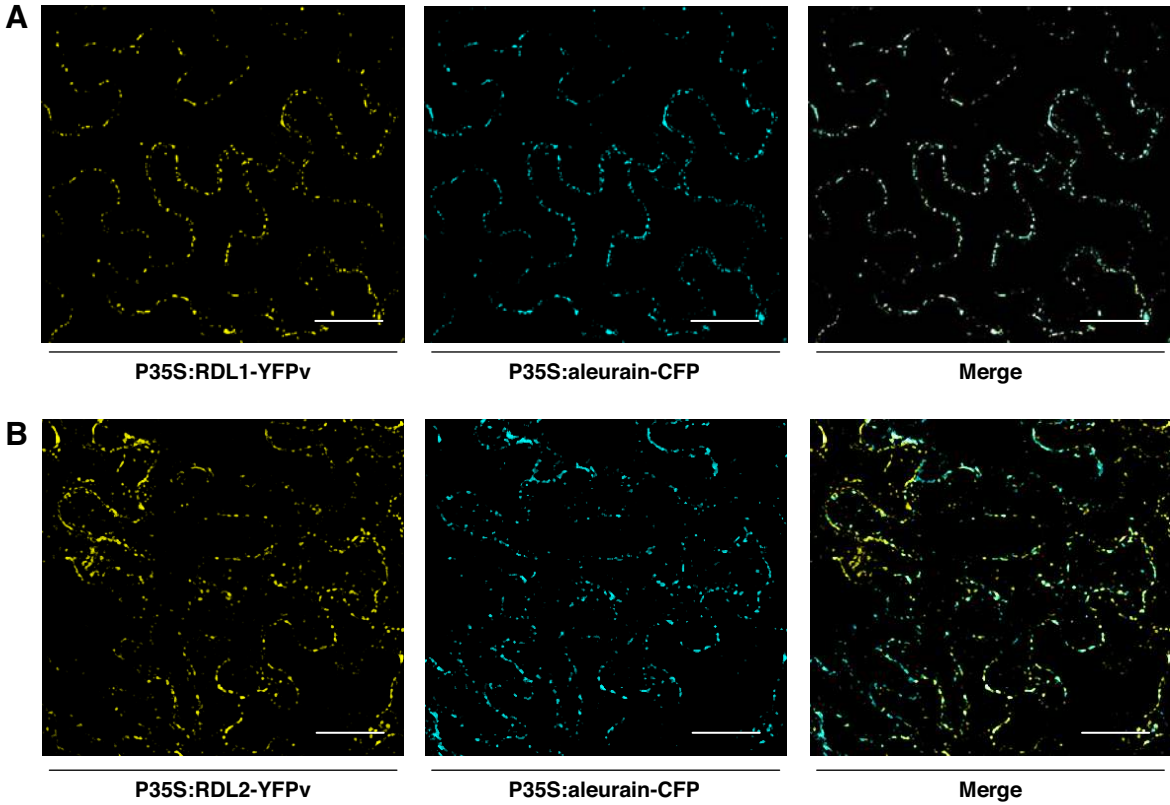


Figure S5. RDL1-YFPv and RDL2-YFPv Colocalize with Aleurain-CFP.

Confocal images of *N. benthamiana* epidermal cells, 48h after co-expression of P35S:aleurain-CFP with P35S:RDL1-YFPv (**A**) or with P35S:RDL2-YFPv (**B**) via *Agrobacterium tumefaciens*. RDL1-YFPv and RDL2-YFPv colocalize with aleurain-CFP as indicated from the shown merged images. Scale bar represents 20 μm .

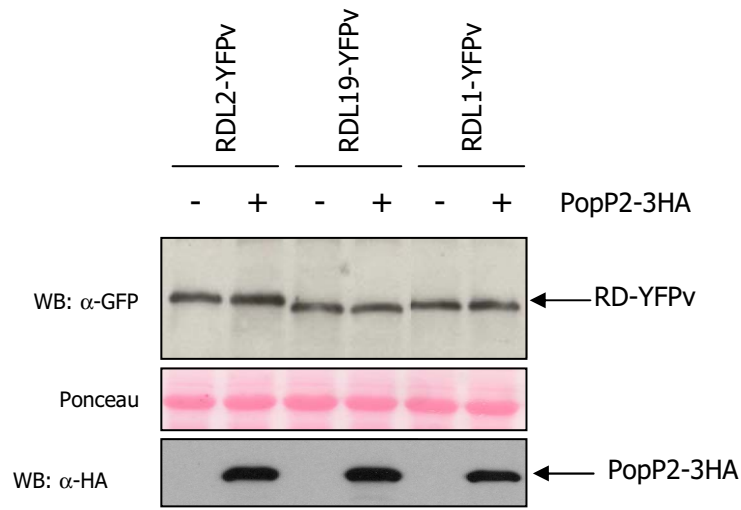


Figure S6. Detection of Full Length YFPv-Tagged Proteins.

RD19-YFPv (63.8 kDa), RDL1-YFPv (68 kDa) and RDL2-YFPv (69.6 kDa) were transiently expressed alone or in the presence of PopP2-3HA in *N. benthamiana*. YFPv- and HA-tagged proteins were detected using anti-GFP and anti-HA antibodies, respectively. Equal amounts of total protein extracts were loaded as indicated by ponceau staining.