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Product no AS16 3973

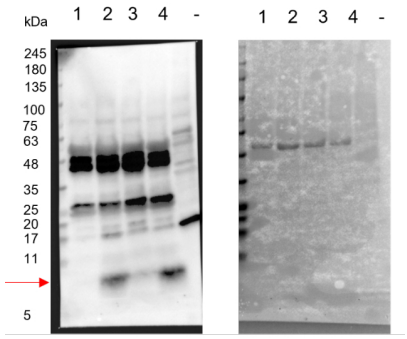
PDF1 | Plant defensin 1.1

Product information

Immunogen	KLH-conjugated synthetic peptide derived from *Arabidopsis thaliana* PDF1.1 UniProt: P30224-1, TAIR: At1g75830 The peptide sequence, it is perfectly conserved in following *Arabidopsis thaliana* isoforms: PDF1.2c, PDF1.2b, PDF1.2A, PDF1.3. PDF2 isoform sequence did not come in the blast.
Host	Rabbit
Clonality	Polyclonal
Purity	Affinity purified serum in PBS pH 7.4
Format	Lyophilized
Quantity	50 µg
Reconstitution	For reconstitution add 50 µl, of sterile water.
Storage	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.

Application information

Recommended dilution	1 : 1000 (WB)
Expected | apparent MW	8.7 kDa
Confirmed reactivity	*Arabidopsis thaliana, Solanim lycopersicum*
Predicted reactivity	*Arabidopsis thaliana, Brassica rapa, Camelina sativa, Eutrema salsugineum, Capsella rubella, Sorghum* sp. Species of your interest not listed? Contact us
Not reactive in	*Nicotiana benthamiana*, *Solanum tuberosum*
Selected references	Nikoloudakis et al. (2020). Structural Diversity and Highly Specific Host-Pathogen Transcriptional Regulation of Defensin Genes Is Revealed in Tomato. Int J Mol Sci. 2020 Dec 9;21(24):9380. doi: 10.3390/ijms21249380. PMID: 33317090; PMCID: PMC7764197.



Samples:

Marker used is Prestained Protein SHARPMASS™ VI Protein MW marker (5-245 kDa) from Euroclone company.

sample 1:, 40 µg of *Arabidopsis thaliana* total protein from wildtype leaves 0 hour post infection with *Botrytis cinerea* (negative control);

sample 2: 40 µg of *Arabidopsis thaliana* total protein from mutant leaves (with induced expression of *PDF1* mRNA) 0 hour post infection with *Botrytis cinerea* (positive control);

sample 3: 40 µg of *Arabidopsis thaliana* total protein from wild type leaves 24 hours post infection with *Botrytis cinerea* (positive control, PDF1 is expected to be induced by the pathogen used in the experiment);

sample 4: 40 µg of *Arabidopsis thaliana* total protein from mutant leaves (with induced expression of *PDF1* mRNA) leaves 24 hours post infection with *Botrytis cinerea* (positive control);

samples "-", 10 µg of *Arabidopsis thaliana* total protein wild type seedlings grown in dark condition (Negative control)

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Up to 40 µg/well of total protein extracted freshly from 6-week-old leaves of *Arabidopsis thaliana* with extraction buffer (125 mm Tris, pH 6.8, 4% [w/v] SDS, 20% [v/v] glycerol, 0.02% [w/v] bromophenol blue, 10% [v/v] -mercaptoethanol) and denatured 95°C for 7 minutes were separated on a 4–20% Mini-PROTEAN® TGX™ Precast Protein Gels (biorad) SDS-PAGE and blotted 1h to PVDF (pore size of 0.2 µm), using Trans-Blot Turbo Transfer System (Bio-Rad). Blot was blocked with 5% milk for 1h/RT with agitation. Blot was incubated in the primary antibody at a dilution of 1: 1 000 for overnight (~16hours) with agitation in PBS-T with agitation at +4 °C. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in PBS-T at RT with agitation. Blot was incubated in Agrisera matching secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated) diluted to 1:10 000 for 2h/RT with agitation. The blot was washed as above and developed for 3 min with Agrisera ECL SuperBright with ChemiDoc Imaging Systems (Bio-Rad). Exposure time was 10 seconds.
Left membrane: Western blot detection. Right membrane: staining.

Courtesy Dr. Ricardo Lorrani, University of Rome Sapienza, Italy