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Product no AS07 207

PR-3 / CHN | Class I chitinase

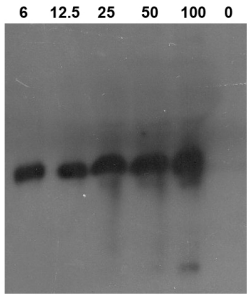
Product information

Immunogen	Purified tobacco class I chitinase. The preparation used is a mixture of two class I isoforms (Shinshi et al., 1990; van Buuren et al., 1992): 1) Chitinase A (CHN A) P08252 encoded by gene chn48 derived from the *N. tomentosiformis* ancestor of tobacco. 2) Chitinase B (CHN B) P24091 encoded by gene chn50 derived from the *N. sylvestris* ancestor of tobacco.
Host	Rabbit
Clonality	Polyclonal
Purity	Total IgG. Protein G purified in PBS pH 7.4.
Format	Lyophilized
Quantity	2 mg
Reconstitution	For reconstitution add 100 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 the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.
Additional information	Antibody is recognizing closely related tobacco class I isoforms: endochitinase A CHN-A (ca. 34 kDa) and endochitinase B CHN-B (ca. 32 kDa) This antibody can be used as a marker of vacuolar contents Keefe et al. (1990). The effect of ethylene on the cell-type-specific and intracellular localization of -1,3-glucanase and chitinase in tobacco leave. Plant 182: 43-51.

Application information

Recommended dilution	8 µg/ml (WB)
Expected | apparent MW	35, 34 | 32 and 34 kDa
Confirmed reactivity	*Agostis stolonifera* cv. 'Penncross', *Capsicum annuum, Nicotiana tabacum, Picea abies, Solanum esculentum, Solanum lycopersicum, Solanum tuberosum, Vitis vinifera*
Predicted reactivity	*Arabidopsis thaliana, Manihot esculenta, Zea mays* Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Additional information	Important note: For blocking 5 % skim milk in PBS without Ca++ should be used,This antibody is purified by affinity chromarography on Portein G
Selected references	Mansilla et al. (2020).- Characterization of functionalized bentonite as nanocarrier of salicylic acid with protective action against Pseudomonas syringae in tomato plants. Eur J Plant Pathol 158, 211?222 (2020). https://doi.org/10.1007/s10658-020-02067-w Colman et al. (2019). Chitosan microparticles improve tomato seedling biomass and modulate hormonal, redox and defense pathways. Plant Physiology and Biochemistry Volume 143, October 2019, Pages 203-211. Kumari et al. (2017), Overexpression of a Plasma Membrane Bound Na+/H+ Antiporter-Like Protein (SbNHXLP) Confers Salt Tolerance and Improves Fruit Yield in Tomato by Maintaining Ion Homeostasis. Front Plant Sci. 2017 Jan 6;7:2027. doi: 10.3389/fpls.2016.02027. Jespersen et al. (2017). Metabolic Effects of Acibenzolar-S-Methyl for Improving Heat or Drought Stress in Creeping Bentgrass. Front Plant Sci. 2017 Jul 11;8:1224. doi: 10.3389/fpls.2017.01224. eCollection 2017. (western blot, Agostis stolonifera cv. ?Penncross?) Ko et al. (2016). Constitutive expression of a fungus-inducible carboxylesterase improves disease resistance in transgenic pepper plants. Planta. 2016 Aug; 244(2):379-92. doi: 10.1007/s00425-016-2514-6. Epub 2016 Apr 13.

Application example



Detection of tobacco chitinase I in ng loaded per respective well using anti-tobacco chitinase I antibodies. Primary antibodies have been used at 8 µg/ml.