

PR-3 / CHN | Class I chitinase

Cat PA00945

Size 2 mg

Host

Rabbit

Clonality

Polyclonal

Confirmed reactivity

Agostis stolonifera cv. 'Penncross', Capsicum annuum, Nicotiana tabacum, Picea abies, Solanum esculentum, Solanum lycopersicum, Solanum tuberosum, Vitis vinifera

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

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.

Application

Co-Immunoprecipitation (IP) (Co-IP), Immunolocalization (IL), Western blot (WB)

Recommended dilution

8 µg/ml (WB)

Expected | apparent MW

35, 34 | 32 and 34 kDa

Confirmed reactivity

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Predicted reactivity

Arabidopsis thaliana, Manihot esculenta, Zea mays

Not reactive in

No confirmed exceptions from predicted reactivity are currently known

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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 β -1,3-glucanase and chitinase in tobacco leave. Plant 182: 43-51., Important note: For blocking 5 % skim milk in PBS without Ca++ should be used, This antibody is purified by affinity chromatography on Protein G

Description

Pathogenicity associated proteins (PR) are induced when a plant is infected by a microbial pathogen. The combination of glucanase I and chitinase I is a potent inhibitor of fungal growth in vitro, but its exact mechanism is unknown. Glucanase I (PR-2) and chitinase I (PR-3) help fight fungal infections and are currently used as markers of innate immunity, particularly in the pathogenesis of the ethylene/jasmonic acid signaling pathway.

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