

product **AS07 208**

**PR-2 | GLU I | class I beta-1,3-glucanase**

### product information

<b>background</b>	Pathogenesis-related (PR) proteins, are induced in response to the infection of plants with microbial pathogens. Combinations of glucanase I and chitinase I are potent inhibitors of fungal growth in vitro however precise mechanism of that is still not known. Glucanase I and chitinase I contribute to defense against fungal infection and are currently used as markers for innate immunity, and in particular the ethylene/jasmonate signalling pathway in pathogenesis. Alternative names of the protein: basic beta-1,3-glucanase
<b>immunogen</b>	purified tobacco class I, basic $\beta$ -1,3-glucanase. Purified GLU I consists of a mixture of closely related polypeptides encoded by a family of GLU I genes comprising GLA <a href="#">B5APL3</a> derived from the sylvestris ancestor of tobacco, GLB <a href="#">P27666</a> derived from the tomentosiformis ancestor of tobacco and homeologous recombinants (Sperisen et al., 1991). Mature GLU I is processed from a pre-pro-polypeptide (Shinshi et al., 1988).
<b>antibody format</b>	rabbit polyclonal total IgG in PBS pH 7.4 (without Ca <sup>++</sup> ) lyophilized
<b>quantity</b>	2 mg for reconstitution add 100 $\mu$ l of sterile water.
<b>storage</b>	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.
<b>tested applications</b>	western blot (WB), immunolocalization (IL)
<b>additional information</b>	for more details on immunolocalization, please refer to Keefe et al (1990). Plant 182: 43-51  This antibody can be used as a marker of vacuolar contents <a href="#">Keefe et al. (1990)</a> . 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

<b>recommended dilution</b>	8 ug/ml with standard ECL (WB)
<b>expected   apparent MW</b>	37   33 kDa
<b>confirmed reactivity</b>	<i>Nicotiana tabacum</i> , <i>Populus sp.</i>
<b>predicted reactivity</b>	dicots including: <i>Solanum lycopersicum</i> , <i>Solanum tuberosum</i> ,
<b>not reactive in</b>	<i>Arabidopsis thaliana</i>

### additional information

Important note: for blocking 5 % skim milk in PBS without Ca<sup>++</sup> should be used.

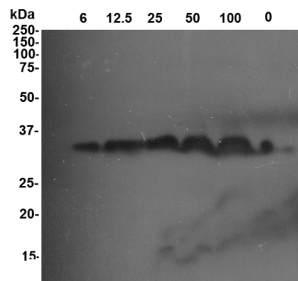
This antibody is purified by affinity chromatography on Portein G.

### selected references

Sticher, L., Hinz, U., Meyer, A. D., and Meins, F. Jr. (1992). Intracellular transport and processing of a tobacco vacuolar  $\beta$ -1,3-glucanase. *Planta* 188, 559-565.

Beffa et al. (1993). Physiological compensation in antisense transformants: Specific induction of an ersatz glucan endo- $\beta$ -1,3-glucosidase in plants infected with necrotizing viruses. *Proc. Natl. Acad. Sci. U. S. A* 90, 8792-8796.

### application example



Detection of tobacco class I  $\beta$  1,3 – glucanase in ng loaded per respective well using anti- tobacco class I  $\beta$  1,3 – glucanase antibodies. Primary antibodies have been used at 8  $\mu$ g/ml.