

product **AS09 503**

V-ATPase, B | vacuolar H⁺-ATPase subunit B

product information

background	V-ATPase , subunit B is a non-catalytic subunit of the peripheral V1 complex of vacuolar ATPase. Alternative names: Vacuolar proton pump subunit B1, vacuolar H ⁺ -ATPase subunit B, V-ATPase 57 kDa subunit.
immunogen	purified native V-ATPase, subunit B from <i>Vigna radiata</i>
antibody format	rabbit polyclonal, ammonium sulfate purified IgG,
quantity	100 µl
storage	store at -20°C; 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 material adhering to the cap or sides of the tubes.
tested applications	ELISA (ELISA), western blot (WB)
additional information	0.1 % sodium azide is added as preservative. For antibody re-suspending information check the tube label. Antibodies will detect target protein in a few µg of a crude preparation loaded per well. If purified preparations of vacuolar and plasma membranes are used, one µg load per well should be sufficient. Protocol for isolation of vacuolar membranes can be found here .

application information

recommended dilution	1: 8000 (ELISA), 1: 2000 with standard ECL (WB)
expected apparent MW	53 57 kDa (<i>Vigna radiata</i>)
confirmed reactivity	<i>Acetabularia sp.</i> , <i>Hordeum vulgare</i> , <i>Oryza sativa</i> , <i>Pinus sylvestris</i> , <i>Pyrus sp.</i> , <i>Vigna radiata</i>
predicted reactivity	dicots including: <i>Arabidopsis thaliana</i> , <i>Gossypium mexicanum</i> , monocots including: <i>Hordeum vulgare</i> , <i>Oryza sativa</i> , trees: <i>Populus trichocarpa</i> , moss: <i>Physcomitrella patens</i> , algae: <i>Chlamydomonas reinhardtii</i> , microalgae: <i>Ostreococcus tauri</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment

additional information

Protein or membrane sample should be treated at 70 °C for 10 min before loading on the gel.

Diluted antibody solution can be used 2 to 3 times within one month if it contains 0.1 % sodium azide as preservative and is stored at -20°C to -80°C.

Manufactured by Operon Biotechnologies.

selected references

[Kawamura](#) et al. (2000). Tissue specificity of E subunit isoforms of plant vacuolar H(+)-ATPase and existence of isotype enzymes. *J.Biol. Chem.* 275:6515-6522. [Nakanishi & Maeshima](#) (1998). Molecular cloning of vacuolar H(+)-pyrophosphatase and its developmental expression in growing hypocotyl of mung bean. *Plant Physiol.* 116:589-597. [Smart](#) et al. (1998). Genes involved in osmoregulation during turgor-driven cell expansion of developing cotton fibers are differentially regulated. *Plant Physiol.* 116:1539-1549. [Matsuura-Eno](#) et al. (1992). Mechanism of the Decline in Vacuolar H⁻ATPase Activity in Mung Bean Hypocotyls during Chilling. *Plant Physiology* 100:718-722.

application example

65 µg/lane of purified vacuolar membranes from *Vigna radiata L.* (1,3) and purified V-ATPase, 7.4 µg/lane (2,4) were separated on 12 % **SDS-PAGE** and blotted 1h to PVDF membrane (40 min. at 10 V using BioRad semidry transfer). Filters were blocked 1h with 5 % low-fat **milk powder** in TBS-T (0.05% Triton X.100). Membranes were washed 5 times with TBS-T, each time in a fresh polystyrene box and probed with anti-V-ATPase subunit B antibodies (AS09 503, **1:2000**, 1h) and secondary anti-rabbit (**1:2000**, 1 h). All steps were performed in RT with agitation.

CBB - staining with Coomassie blue - left panel. Immunoblot - western blot detectoin - right panel.

