

product **AS09 467**

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

product information

background	V-ATPase subunit A is a catalytic subunit of V1 complex of vacuolar ATPase. This enzyme (EC=3.6.3.14) is involved in acidification process of various compartments of eucaryotic cell. This protein is coded by VHA-A gene. Alternative names: Vacuolar proton pump subunit alpha, vacuolar H(+)-ATPase subunit A, V-ATPase 69 kDa subunit
immunogen	<u>KLH</u> -conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> V-ATPase subunit A, <u>Q23654</u>
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 plant vacuolar membranes can be found here .

application information

recommended dilution	1: 8000 (ELISA), 1: 2000 with standard ECL (WB)
expected apparent MW	68.8 70 kDa (<i>Arabidopsis thaliana</i>)
confirmed reactivity	<i>Arabidopsis thaliana</i>
predicted reactivity	dicots including: <i>Brassica napus</i> , <i>Cucumis sativus</i> , <i>Gossypium mexicanum</i> , <i>Lycopersicon esculentum</i> , <i>Phaseolus aureus</i> , monocots including: <i>Hordeum vulgare</i> , <i>Oryza sativa</i> , <i>Triticum aestivum</i> , <i>Zea mays</i> , trees: <i>Populus balsamifera</i> , moss: <i>Physcomitrella patens</i> , algae: <i>Chlamydomonas reinhardtii</i> , <i>Ostreococcus lucimarinus</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

Yoshihiro et al. (2006) Immunochemical analysis of aquaporin isoforms in Arabidopsis suspension-cultured cells. *Cells. Biosci. Biotechnol. Biochem.* 70: 980-987.

application example

1 µg and 10 µg of crude membrane fraction/lane from *Arabidopsis thaliana* 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 A antibodies (AS09 467, **1:2000**, 1h) and secondary anti-rabbit (**1:2000**, 1 h). All steps were performed in RT with agitation.

