Datasheet for ABIN249357

anti-ATP6AP1 antibody

2 Images | 8 Publications

Go to Product page

Overview

Quantity:	50 µL
Target:	ATP6AP1
Reactivity:	Arabidopsis thaliana, Chlamydomonas, Soybean
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATP6AP1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunolocalization (IL)

Product Details

Immunogen:	KLH-conjugated synthetic peptide derived from available di and monocot, fern, mosses and algal plasma membrane ATPase sequences including Arabidopsis thaliana ATPase 1 (At2g18960) and ATPase 2,3,4,6,7,8,9 of Arabidopsis thaliana and hydrogen ATPase of Chlamydomonas reinhardtii (Q9FNS3)
Cross-Reactivity:	Soybean (Glycine max)
Cross-Reactivity (Details):	No cross-reactivity with: Aspergillus niger
Characteristics:	Expected / apparent Molecular Weight of the Antigene: 95 kDa (Arabidopsis thaliana)
Purification:	serum

Target Details

Target:	ATP6AP1
Alternative Name:	H+ATPase (ATP6AP1 Products)

Target Details

Background:	AGI Code: At2g18960 The Plasma Membrane H+ATPase is a family of proteins of ca. 100 kDa that are believed to be exclusive to the plasma membranes of plants and fungi. The protein is anchored within biological membrane which creates an electrochemical gradient used as an energy source and is essential for uptake of most metabolites and plant responses to environment, for example movement of leaves.
Molecular Weight:	95 kDa (Arabidopsis thaliana)
UniProt:	P20649
Pathways:	Proton Transport, SARS-CoV-2 Protein Interactome

Application Details

Application Notes:	Recommended Dilution: 1 : 1000 - 1 : 5000 with standard ECL OR 1 : 10 000 with ECL-Advance, enhanced chemiluminescence (WB), 1 : 600 - 1 : 1000 (IF). Cellular [compartment marker] for plasma membrane
Comment:	for additional Western blot detection image please refer to the article below.VERY IMPORTANT: please, do not heat up your samples over 70°C as this might cause H+ATPase to precipitate and there will be no signal on your western blot.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	For reconstitution add 200 µL of sterile water.
Buffer:	PBS pH 7.4
Handling Advice:	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. Once reconstituted make aliquots to avoid repreated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	Do not store this antibody at 4 °C.

Publications

Product cited in:	Sobrino-Plata, Carrasco-Gil, Abadía, Escobar, Álvarez-Fernández, Hernández: "The role of

Publications

glutathione in mercury tolerance resembles its function under cadmium stress in Arabidopsis." in: **Metallomics : integrated biometal science**, Vol. 6, Issue 2, pp. 356-66, (2014) (PubMed).

Chen, Fujii, Yamaji, Masuda, Takemoto, Kamiya, Yusuyin, Iwasaki, Kato, Maeshima, Ma, Ueno: " Mn tolerance in rice is mediated by MTP8.1, a member of the cation diffusion facilitator family." in: **Journal of experimental botany**, Vol. 64, Issue 14, pp. 4375-87, (2013) (PubMed).

Menckhoff, Mielke-Ehret, Buck, Vuletić, Lüthje: "Plasma membrane-associated malate dehydrogenase of maize (Zea mays L.) roots: Native versus recombinant protein." in: **Journal of proteomics**, Vol. 80C, pp. 66-77, (2013) (PubMed).

Visnovitz, Solti, Csikós, Fricke: "Plasma membrane H(+) -ATPase gene expression, protein level and activity in growing and non-growing regions of barley (Hordeum vulgare) leaves." in: **Physiologia plantarum**, Vol. 144, Issue 4, pp. 382-93, (2012) (PubMed).

Zhang, Peck: "Simplified enrichment of plasma membrane proteins for proteomic analyses in Arabidopsis thaliana." in: **Proteomics**, Vol. 11, Issue 9, pp. 1780-8, (2011) (PubMed).

There are more publications referencing this product on: Product page

Images

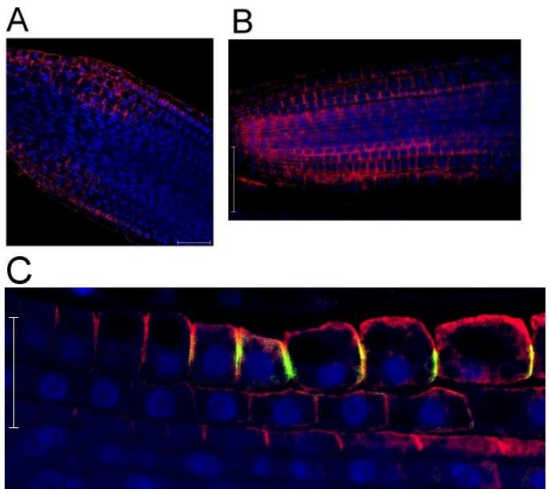

Image 1.

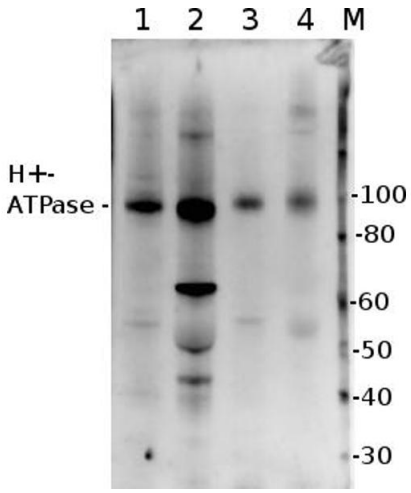

Image 2. 5 µg of total protein from (1) Zea mays lwhole cell, extracted with Protein Extration Buffer, PEB, (2) Hordeum vulgare leaf extracted with PEB, (3) Spinacia oleracea total cell extracted with PEB, (4) Arabidopsis thaliana were separated on 4-12% NuPage (Invitrogen) LDS-PAGE and blotted 1h to PVDF. Blots were blocked immediately following transfer in 2% ECL Advance blocking reagent (GE Healthcare) in 20 mM Tris, 137 mM sodium chloride pH 7.6 with 0.1% (v/v) Tween-20 (TBS-T) for 1h at room temperature with agitation. Blots were incubated in the primary antibody at a dilution of 1: 10 000 for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Abcam) diluted to 1:50 000 in 2% ECL Advance blocking solution for 1h at room temperature with agitation. The blots were washed as above and developed for 5 min with ECL Advance detection reagent according the manufacturers instructions. Images of the blots were obtained using a CCD imager (FluorSMax, Bio-Rad) and Quantity One software (Bio-Rad).