Datasheet for ABIN3197488

anti-ATP6V0D2 antibody (Isoform 1)

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Overview

Quantity:	50 µL
Target:	ATP6V0D2
Binding Specificity:	Isoform 1
Reactivity:	Tomato, Arabidopsis thaliana, Pteris vittata (Chinese ladder brake), Zea mays, Barley, Chlamydomonas reinhardtii, Lilium longiflorum (Trumpet lily), Oryza sativa
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	KLH-conjugated synthetic peptide chosen from subunit E of plant V-ATPase including Arabidopsis thaliana At4g11150. Peptide is conserved in vacuolar H+-ATPase subunit E, isoform 1 to 3 (VHA-E1).
Cross-Reactivity (Details):	No cross-reactivity with: mangrove plants,
Characteristics:	Expected / apparent Molecular Weight of the Antigene: 26 / 31 kDa (Arabidopsis thaliana)
Purification:	serum

Target Details

Target:	ATP6V0D2
Alternative Name:	V-ATPase (ATP6V0D2 Products)
Background:	AGI Code: At4g11150

Target Details

	Plant vacuole V-ATPase is responsible for energization of transport of ions and metabolites, and acts as well 'house-keeping' and as a stress response enzyme. V-ATPase is a multi-subunit enzyme composed of a membrane sector and a cytosolic catalytic sector. It is related to the FoF1 ATP synthase. Alternative protein names: Vacuolar proton pump subunit E, Protein EMBRYO DEFECTIVE 2448
Molecular Weight:	expected: 26 kDa, apparent: 31 kDa (Arabidopsis thaliana)
UniProt:	Q39258
Pathways:	Transition Metal Ion Homeostasis, Proton Transport

Application Details

Application Notes:	Recommended Dilution: 1 : 2 000 - 1 : 5000 with alkaline phosphatase (WB), 1 : 50 (IHC). Cellular [compartment marker] of tonoplast membrane
Comment:	V-ATPase is very sensitive for the redox of the SDS buffer. We recommend using at least 50-100 mM DTT freshly prepared before handling the sample.Immunostaining protocol using V-ATPase antibodies can be found here.
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	For reconstitution add 10 µL of sterile water.
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

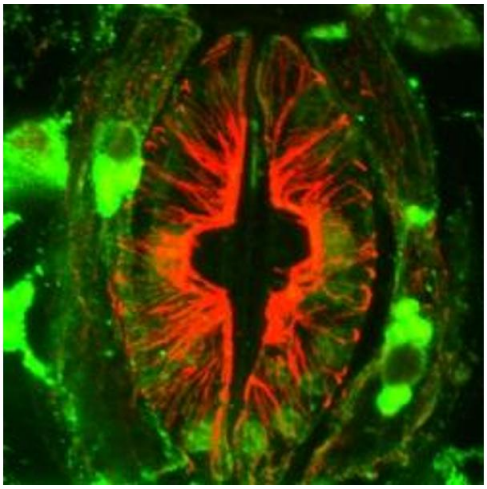
Publications

Product cited in:	Bigeard, Rayapuram, Bonhomme, Hirt, Pflieger: "Proteomic and phosphoproteomic analyses of chromatin-associated proteins from Arabidopsis thaliana." in: **Proteomics**, Vol. 14, Issue 19, pp. 2141-55, (2014) (PubMed). Schnell, Han, Miki, Johnson: "Soybean peroxidase propeptides are functional signal peptides and increase the yield of a foreign protein." in: **Plant cell reports**, (2010) (PubMed).

Publications

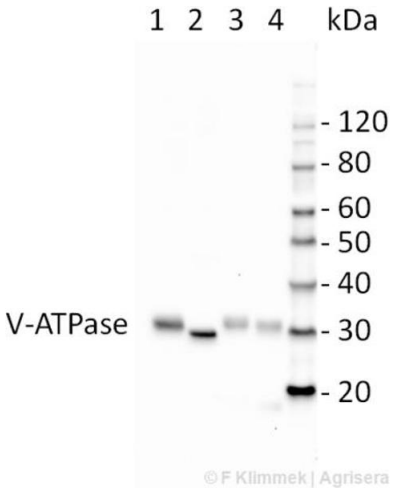
Hinton, Sennoune, Bond, Fang, Reuveni, Sahagian, Jay, Martinez-Zaguilan, Forgac: "Function of a subunit isoforms of the V-ATPase in pH homeostasis and in vitro invasion of MDA-MB231 human breast cancer cells." in: **The Journal of biological chemistry**, Vol. 284, Issue 24, pp. 16400-8, (2009) (PubMed).

Images



Western Blotting

Image 1. Western Blotting: 1 - molecular weight markers (Precision Plus Protein Standards, Dual Color, Bio-Rad, 10ul), 2 -Arabidopsis thaliana leaf extract (25 ug) Experimental Conditions: Protein was separated on a 12% SDS-PAGE gel at 200 V for approximately 40 min using the mini-Protein 3 cell (Bio-Rad). Protein was transferred to PVDF at 100 V for 1h using the mini-TransBlot cell (Bio-Rad). Blocked overnight at 4ºC in 5% non-fat milk dissolved in 1xPBST. Incubated with anti-V-ATPase at 1:2 000 for 2h at RT. After several washes in 1xPBST, blot was incubated with goat anti-rabbit IgG-alkaline phosphatase conjugate (Bio-Rad) at 1:3000 for 1h at RT. Blot was developed with NBT/BCIP (Molecular Probes). Courtesy: Ms Jaimie Schnell, PhD candidate



Western Blotting

Image 2. Western Blot analysis of samples from yeast whole cell extract expressing the Arabidopsis thaliana subunit E1. Primary antibodies have been used at 1: 1: 000. Secondary antibodies at 1: 3 000. The load per well was 10 ug of total protein. Samples were separated on 10 % gel in Tris glycine SDS buffer. The proteins were transferred to a membrane (Schleicher & Schuell), blocked with 5% dry milk in Tris-buffered saline before incubation for 2 hours up to over night at RT with the primary antibody. A series of

washes with TTBS was followed by incubation with a secondary antibody from).