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Product no AS09 487

Anti-PIP (PIP1;1, PIP1;2, PIP1;3, PIP1;4, PIP1;5) | Aquaporins

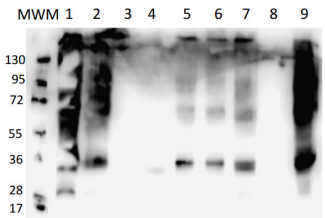
Product information

Immunogen	KLH-conjugated synthetic peptide conserved in *Arabidopsis thaliana:* PIP1;1 UniProt: P61837,At3g61430 PIP1;2 UniProt: Q06611,TAIR: At2g45960 PIP1;3 UniProt: Q08733,TAIR: At1g01620 , PIP1;4 UniProt: Q39196,TAIR: At4g00430, PIP1;5 UniProt: Q8LAA6 TAIR:At4g23400
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Lyophilized
Quantity	50 µg
Reconstitution	For reconstitution add 50 µl of sterile water
Storage	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.
Additional information	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

Application information

Recommended dilution	1: 150 (IF), 1 : 1000 (WB)
Expected | apparent MW	30.68 | 28 kDa
Confirmed reactivity	*Arabidopsis thaliana, Brassica sp., Jatropha curcas* L. cv. Biji Jarak , *Mesembryantheum crystallinum*, *Populus nigra, Populus trichocarpa*, *Raphanus sativus, Setaria viridis, Thellungiella salsuginea*
Predicted reactivity	*Brassica sp., Glycine max, Hordeum vulgare, Juglans regia, Medicago truncatula, Nicotiana tabacum, Oryza sativa, Populus tremula, Triticum aestivum, Vicia faba* Species of your interest not listed? Contact us
Not reactive in	*Fragaria* sp., *Spinacia oleracea*
Additional information	Protein or membrane sample should be treated at 70°C for 10 min before loading on the gel.
Selected references	Takáč et al. (2024). Actin cytoskeleton and plasma membrane aquaporins are involved in different drought response of Arabidopsis rhd2 and der1 root hair mutants. Plant Physiology and Biochemistry Available online 19 September 2024, 109137. Chen et al. (2022) Elucidating the role of SWEET13 in phloem loading of the C4 grass Setaria viridis. Plant J. 2022 Feb;109(3):615-632. doi: 10.1111/tpj.15581. Epub 2021 Dec 12. PMID: 34780111. Jang et al. (2013). Twoaquaporins of Jatropha are regulated differentially during drought stress and subsequent recovery. J Plant Physiol. March 25. Lopez et al. (2013). Aquaporins And Leaf Hydraulics, Poplar Sheds New Light. Plant Cell Physiol. Sep 20.

Application information



10 µg of *Arabidopsis thaliana* tonoplast fraction **(1)**, *Thellungiella salsuginea* tonoplast fraction **(2)**, *Mesembryanthemum crystallinum* tonoplast fraction **(3)**, *Nicotiana tabacum* tonoplast fraction **(4)**, *Arabidopsis thaliana* plasma membrane fraction **(5)**, *Thellungiella salsuginea* plasma

membrane fraction **(6)**, *Mesembryanthemum crystallinum* plasma membrane fraction **(7)**, *Arabidopsis halleri* microsome fraction **(8)**, *Brassica* sp. microsomal fraction **(9)** were extracted with Protein Extraction Buffer PEB (AS08 300). Samples were diluted with 1X sample buffer (NuPAGE LDS sample buffer (Invitrogen) supplemented with 50 mM DTT and heat at 70°C for 5 min and keept on ice before loading. Protein samples were separated on 4-12% Bolt Plus gels, LDS-PAGE and blotted for 70 minutes to PVDF using tank transfer. Blots were blocked immediately following transfer in 2% blocking reagent or 5% non-fat milk dissolved 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 (in blocking reagent) for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, and then washed 1x15 min and 3x5 min with TBS-T at room temperature with agitation. Blots were incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, recommended secondary antibody AS09 602,Agrisera) diluted to 1:25 000 in blocking reagent for 1h at room temperature with agitation. The blots were washed as above. The blot was developed for 5 min with chemiluminescence reagent according to manufacture instructions. Images of the blots were obtained using a CCD imager (VersaDoc MP 4000) and Quantity One software (Bio-Rad). Exposure time was 30 seconds.

The background at the top of the membrane can be optimized.

Courtesy of Dr. Rosario Vera, UNAM, Mexico