

product **AS09 493**

TIP1;1, TIP1;2 | tonoplast intrinsic protein 1-1, 1-2 (gamma)

product information

background	TIPs belong to MIP/aquaporin protein family. Alternative names: Aquaporin TIP1-1, gamma-tonoplast intrinsic protein, gamma-TIP, aquaporin TIP, gamma-tonoplast intrinsic protein, gamma-TIP, aquaporin TIP, tonoplast intrinsic protein, root-specific RB7, gamma-tonoplast intrinsic protein 2, gamma-TIP2, salt stress-induced tonoplast intrinsic protein
immunogen	<u>KLH</u> -conjugated synthetic peptide conserved in <i>Raphanus sativus</i> TIP1;1 and TIP1;2 (protein accession number available in Suga et al. 2001). Peptide is also conserved in <i>Arabidopsis thaliana</i> TIP1-1 P25818 , TIP1-2 Q41963
antibody format	rabbit polyclonal, serum,
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: 1000 with standard ECL (WB)
expected apparent MW	25.8 23 kDa
confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Raphanus sativus</i>
predicted reactivity	dicots including: <i>Brassica napus</i> , <i>Gossypium hirsutum</i> , <i>Ricinus communis</i> , monocots including: <i>Hordeum vulgare</i> , <i>Oryza sativa</i> , trees: <i>Populus trichocarpa</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.

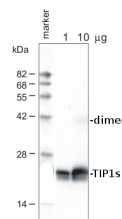
Diluted antibody solution can be used 2 to 3 times within one month if it contains 0.1 % sodium azide as preservative and is stored at -20°C to -80°C.

selected references

Suga et al. (2001). Specificity of the accumulation of mRNAs and proteins of the plasma membrane and tonoplast aquaporins in radish organs. *Planta* 212:294-304.

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-TIP1s antibodies (AS09 473, **1:1000**, 1h) and secondary anti-rabbit (**1:2000**, 1 h). All steps were performed in RT with agitation.



TIP proteins usually show a faint band of dimeric form at 42 kDa in addition to the major monomer band of 23 kDa even in the presence of SDS.