

product **AS09 482**  
**AtTIP1**

### product information

<b>background</b>	<b>TIP1;1</b> is a water channel protein needed for the transport of water, diffusion of amino acids and peptides. Alternative name: Tonoplast intrinsic protein 1-1, gamma-tonoplast intrinsic protein, Gamma-TIP, aquaporin TIP, Tonoplast intrinsic protein, root-specific RB7
<b>immunogen</b>	<u>KLH</u> -conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> <u>P25818</u>
<b>antibody format</b>	rabbit polyclonal, serum,
<b>quantity</b>	100 µl
<b>storage</b>	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.
<b>tested applications</b>	ELISA (ELISA), western blot (WB)
<b>additional information</b>	<p>0.1 % sodium azide is added as preservative. For antibody re-suspending information check the tube label.</p> <p>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.</p> <p>TIP1;1 usually shows a faint band of dimeric form at 42 kDa in addition to the major monomeric band of 23 kDa even in the presence of SDS.</p> <p>Protocol for isolation of plant vacuolar membranes can be found <a href="#">here</a>.</p>

### application information

<b>recommended dilution</b>	1: 8000 (ELISA), 1: 2000 with standard ECL (WB)
<b>expected   apparent MW</b>	25.6   24 kDa ( <i>Arabidopsis thaliana</i> )
<b>confirmed reactivity</b>	<i>Arabidopsis thaliana</i>
<b>predicted reactivity</b>	dictos including: <i>Brassica oleracea</i> , <i>Gossypium mexicanum</i> , <i>Pisum sativum</i> , <i>Ricinus communis</i> , <i>Vitis vinifera</i> , monocots including: <i>Oryza sativa</i> , trees: <i>Picea abies</i> , <i>Populus trichocarpa</i>
<b>not reactive in</b>	no confirmed exceptions from predicted reactivity known in the moment
<b>additional information</b>	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

[Ishikawa](#) et al. (2005). Novel type aquaporin SIPs are mainly localized to the ER membrane and show cell-specific expression in Arabidopsis thaliana. FEBS Lett. 25:5814-5820.

## 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-TIP1;1 antibodies (AS09 482, **1:1000**, 1h) and secondary anti-rabbit (**1:2000**, 1 h). All steps were performed in RT with agitation.

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