Product no AS09 491
PIP2;1, PIP2;2, PIP2;3 | Plasma membrane intrinsic protein 2-1,2-2,2-3

Product information

**Background**

PIP2;2 is a plasma membrane aquaporin. Alternative names of isoforms: aquaporin PIP2-1, plasma membrane intrinsic protein 2a, PIP2a, aquaporin PIP2-2, plasma membrane intrinsic protein 2b, PIP2b, TMP2b, Aquaporin PIP2-3, plasma membrane intrinsic protein 2c, PIP2c, TMP2c, RD28-PIP, water stress-induced tonoplast intrinsic protein, (WSII-TIP)

**Immunogen**

KLH-conjugated synthetic peptide derived from Arabidopsis thaliana PIP2 proteins: AtPIP2-1, At3g53420, AtPIP2-2 P43287, At2g37170, AtPIP2-3 P30302, At2g37180

**Host**

Rabbit

**Clonality**

Polyclonal

**Purity**

Serum

**Format**

Lyophilized

**Quantity**

100 µl

**Reconstitution**

For reconstitution add 100 µl of sterile water.

**Storage**

Store lyophilized/reconstituted 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)

**Related products**

collection of antibodies to plasma membrane proteins

- AS09 488 | Anti-PIP2;1 | aquaporin PIP2;1, rabbit antibodies
- AS09 489 | Anti-PIP1;1, PIP1;2, PIP1;3 | aquaporins, rabbit antibodies
- AS09 490 | Anti-PIP2;2 | plasma membrane aquaporin 2b, rabbit antibodies
- Plant protein extraction buffer
- Secondary antibodies

**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.

**Application information**

**Recommended dilution**

1 : 8000 (ELISA), 1 : 1000 (WB)

**Expected | apparent MW**

30.4 | 28 (PIP2-1,PIP2-2,PIP2-3) kDa

**Confirmed reactivity**

Arabidopsis thaliana, Camelina sativa, Gromphadorhina coquereliiana, Raphanus sativus

**Predicted reactivity**

Brassica napus, Cucumis sativus, Glycine hispida, Gossypium hirsutum, Hedychium coronarium, Mimosa saman, Nicotiana glauca, Petunia hybrida, Pismum sativum, Ricinus communis, Populus tremula x Populus tremloides, Physcomitrella patens

Species of your interest not listed? Contact us

**Not reactive in**

No confirmed exceptions from predicted reactivity are currently known.

**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 -20ºC to -80ºC.

Triton X-100 should not be included in the protein extraction buffer, when cell organelles or membrane proteins must be separated from soluble proteins. Because, Triton X breaks membrane structure and solubilizes most membranes proteins. Furthermore, it should be noted that Triton X at high concentrations binds SDS and mask the detergent effect of SDS for SDS-PAGE. Also, micelles of Triton X behave as a large complex with molecular mass of 90 kDa at high concentrations in SDS-PAGE.

For high resolution images, please visit the specific product page at www.agrisera.com

**Selected references**

Hyun-Sung et al. (2019). NaCl-induced CsRCI2E and CsRCI2F interact with aquaporin CsPIP2;1 to reduce water transport in Camelina sativa L. Biochemical and Biophysical Research Communications, Available online 4 April 2019.


**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 semi-dry 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-PIP2s antibodies (AS09 491, 1:1000, 1h) and secondary anti-rabbit (1:2000, 1 h). All steps were performed in RT with agitation.