

product **AS10 702**
Actin-11

product information

background	Actin is a highly conserved protein and an essential component of cell cytoskeleton and plays an important role in cytoplasmic streaming, cell shape determination, cell division, organelle movement and extension growth. Preferentially expressed in young and expanding tissues, floral organ primordia, developing seeds and emerging inflorescence.
immunogen	full length <u>ACT11</u> (Actin-11) from <i>Arabidopsis thaliana</i> , accession number NP_187818.1
antibody format	mouse monoclonal IgG2b lyophilized
quantity	100 µg for reconstitution add 100 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 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. Shelf life of this product is one year from the data of shipment.
tested applications	western blot (WB), immunofluorescence (IF)
additional information	Antibody has been affinity purified.

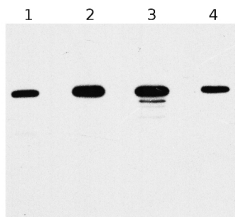
application information

recommended dilution	1 : 1000 with standard ECL (WB), 1: 700 (IF)
expected apparent MW	41.6 45 kDa
confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Nicotiana tabacum</i> , <i>Oryza sativa</i>
predicted reactivity	dicots including: <i>Glycine max</i> , <i>Pisum sativum</i> , <i>Solanum tuberosum</i> , <i>Ricinus communis</i> , monocots: <i>Zea mays</i> , trees: <i>Picea abies</i>
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	to be added when available
selected references	<u>Licausi</u> et al. (2011). Oxygen sensing in plants is mediated by an N-end rule pathway for protein destabilization. Nature -

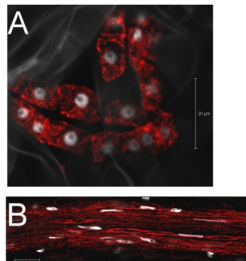
ahead of print.

[Huang](#) et al (1997). The Arabidopsis ACT11 actin gene is strongly expressed in tissues of the emerging inflorescence, pollen, and developing ovules. *Plant Mol Biol.* 33(1):125-139.

application example



30 ug lysates from *Arabidopsis thaliana* flower bud (1), stem (2), root (3), leaf (4) were separated on 4-12% SDS-PAGE and blotted 1h to PVDF. Blots were incubated in the primary antibody at a dilution of 1: 3 000 for 1h at room temperature with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed once for 15 min and 3 times for 5 min in TBS-T at room temperature with agitation. Blots were blocked immediately following transfer in 5% milk for 1h at room temperature with agitation. Blots were incubated in secondary antibody (goat-anti-mouse IgG horse radish peroxidase conjugated) diluted to 1:50 000 for 1h at room temperature with agitation. The blots were washed as above and developed for 5 min with ECL PLUS detection reagent (GE Healthcare) according to the manufacturer's instructions. Exposure time was 60 seconds.



Actin cytoskeleton in 5 days old *Arabidopsis thaliana* seedlings. Actin signal shown in red. Single confocal optical sections through nuclei. There is a presence of bright filamentous structures in trans-vacuolar cytoplasmic strands and around the nucleus. Image B represents elongated pro-vascular cells. The material has been fixed in para-formaldehyde for 30 minutes. Tissue cleaning has been performed before immunolocalization. Mouse anti-actin primary antibody was diluted in 1: 700 and Alexa 546 conjugated goat anti-mouse secondary antibody (Invitrogen) was diluted in 1: 1000. Scale bar - 20 μ m.

Courtesy: Dr. Taras Pasternak