

Agrisera

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Product no **AS10 680**

Tubulin alpha chain (polyclonal antibodies)

Product information

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|-----------------------|---|
| Immunogen | KLH-conjugated peptide derived from available tubulin alpha chain sequences including <i>Arabidopsis thaliana</i> tubulin alpha-1-chain P11139(At1g64740) , alpha-2/alpha-4 chain B9DGT7(At1g50010) , alpha-5 chain B9DHQ0(At5g19780) , alpha-6-chain P29511(At4g14960) Peptide used to elicit this antibody is not present in tubulin beta. |
| 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; 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. This product can be sold containing ProClin if requested. |

Application information

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| Recommended dilution | 1 : 500 (IF), 1 : 1000 (WB) |
| Expected apparent MW | 49 52 kDa (<i>Arabidopsis thaliana</i>) |
| Confirmed reactivity | <i>Arabidopsis thaliana</i> , <i>Chlamydomonas reinhardtii</i> , <i>Euglena gracilis</i> , <i>Hordeum vulgare</i> , <i>Oryza sativa</i> , <i>Setaria italica</i> , <i>Zea mays</i> |
| Predicted reactivity | <i>Brassica napus</i> , <i>Chlorella vulgaris</i> , <i>Chlorella variabilis</i> , <i>Cucumis sativus</i> , <i>Euglena gracilis</i> , <i>Glycine max</i> , <i>Micromonas pusilla</i> , <i>Nannochloropsis gaditana</i> , <i>Ostreococcus lucimarinus</i> , <i>Pisum sativum</i> , <i>Physcomitrella patens</i> , <i>Picea sitchensis</i> , <i>Populus trichocarpa</i> , <i>Solanum tuberosum</i> , <i>Sorghum bicolor</i> , <i>Ricinus communis</i> , <i>Triticum aestivum</i> , <i>Vigna radiata</i> , <i>Vitis vinifera</i> Species of your interest not listed? Contact us |
| Not reactive in | No confirmed exceptions from predicted reactivity are currently known. |
| Selected references | Kanno et al. (2020) . A collection of pre-mRNA splicing 1 mutants in Arabidopsis thaliana. G3 (Bethesda) . 2020 Apr 7;g3.400998.2019.doi: 10.1534/g3.119.400998. Roustan et al. (2020) . Protein sorting into protein bodies during barley endosperm development is putatively regulated by cytoskeleton members, MVBs and the HvSNF7s. Sci Rep. 2020 Feb 5;10(1):1864. doi: 10.1038/s41598-020-58740-x. Sakuraba et al. (2020) . Multilayered regulation of membrane-bound ONAC054 is essential for abscisic acid-induced leaf senescence in rice. Plant Cell. 2020 Jan 6. pii: tpc.00569.2019. doi: 10.1105/tpc.19.00569. Roustan et al. (2020) . Protein sorting into protein bodies during barley endosperm development is putatively regulated by cytoskeleton members, MVBs and the HvSNF7s. Sci Rep. 2020 Feb 5;10(1):1864. doi: 10.1038/s41598-020-58740-x. Upadhyaya and Jagadeeshwar Rao (2019) . Reciprocal regulation of photosynthesis and mitochondrial respiration by TOR kinase in Chlamydomonas reinhardtii. Plant Direct Volume 3, Issue 11. Li et al. (2019) . A genome-wide algal mutant library and functional screen identifies genes required for eukaryotic photosynthesis. Nat Genet. 2019 Apr;51(4):627-635. doi: 10.1038/s41588-019-0370-6. Pan et al. (2018) . Comparative proteomic investigation of drought responses in foxtail millet. BMC Plant Biol. 2018 Nov 29;18(1):315. doi: 10.1186/s12870-018-1533-9. Nasir et al. (2018) . Identification of a flagellar protein implicated in the gravitaxis in the flagellate Euglena gracilis. Sci Rep. 2018 May 15;8(1):7605. doi: 10.1038/s41598-018-26046-8. |

Kwon et al. (2018). AtCAP2 is crucial for lytic vacuole biogenesis during germination by positively regulating vacuolar protein trafficking. *Proc Natl Acad Sci U S A*. 2018 Feb 13;115(7):E1675-E1683. doi: 10.1073/pnas.1717204115.

Ho et al. (2017). A calcineurin B-like protein participates in low oxygen signalling in rice. *CSIRO PUBLISHING Functional Plant Biology*.

Wei et al. (2017). Light Intensity is Important for Hydrogen Production in NaHSO₃-Treated *Chlamydomonas reinhardtii*. *Plant Cell Physiol*. 2017 Mar 1;58(3):451-457. doi: 10.1093/pcp/pcw216.

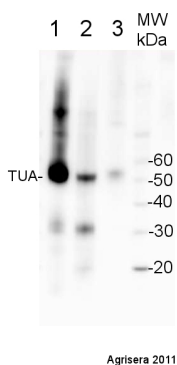
Nasir (2016). Analysis of signal transduction chains of gravity and light sensing in *Euglena gracilis*. Doctoral Thesis, urn:nbn:de:bvb:29-opus4-79185

Armbruster et al. (2014). Ion antiport accelerates photosynthetic acclimation in fluctuating light environments. *Nat Commun*. 2014 Nov 13;5:5439. doi: 10.1038/ncomms6439

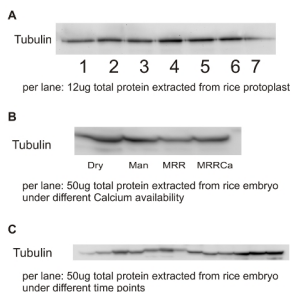
Juszczak et al. (2012). Natural genetic variation in the expression regulation of the chloroplast antioxidant system among *Arabidopsis thaliana* accessions. *Physiol. Plant*.

Application example

Western Blot



5 µg of total protein from *Arabidopsis thaliana* (1), *Hordeum vulgare* (2), *Zea mays* (3) extracted with [Agrisera PEB extraction buffer](#) were separated on 4-12 % SDS-PAGE and blotted 1h to PVDF. Blots were blocked with for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 10 000 for 1h at RT 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 RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Agrisera [AS09 602](#)) diluted to 1:25 000 in for 1h at RT with agitation. The blot was washed as above and developed for 5 min with ECL Advance according to the manufacturers instructions (GE Health care). Exposure time was 120 seconds.



Total protein from either rice embryos or rice protoplasts extracted with buffer containing 60mM Tris-HCl (pH8.0), 2% SDS(w/v), 15% Sucrose (w/v) and protease inhibitor 1X were separated on 12 % SDS-PAGE and blotted 1h to PVDF. Blots were blocked with skimmed milk containing TBS 1X for 1h at room temperature (RT) with agitation. Blot was incubated in the primary antibody at a dilution of 1: 1 000 overnight at 4 degree with shaking about 40 rpm. 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 RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated) diluted to 1:20 000 in for 1h at RT with agitation. The blot was washed as above and developed for 5 min with ECL according to the manufacturers instructions. Exposure time was 10 seconds.

Courtesy of Ho Viet The, PhD Student, Scuola Superiore Sant'Anna, Pisa, Italy

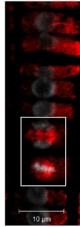
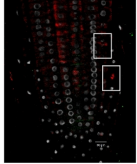
Immunolocalization

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Tubulin alpha localization in roots of *Arabidopsis thaliana*. Tubulin alpha (red), nucleus (DAPI white). Plant material has been fixed in para-formaldehyde for 30 minutes. Tissue cleaning has been performed before immunolocalization. Primary antibodies: Agrisera anti-tubulin alpha 1: 500. Secondary antibody: goat anti-rabbit IgG Alexa conjugated (red color), dilution 1: 500. Scale bar – 10 μm .

Courtesy Dr. Taras Pasternak, Freiburg University, Germany