

Agrisera

This product is for research use only (not for diagnostic or therapeutic use)

contact: support@agrisera.com

Agrisera AB | Box 57 | SE-91121 Vännäs | Sweden | +46 (0)935 33 000 | www.agrisera.com

product **AS08 304**

AtpA | Alpha subunit of ATP synthase, chloroplastic

product information

Background | **ATP synthase** is the universal enzyme that synthesizes ATP from ADP and phosphate using the energy stored in a transmembrane ion gradient. **AtpA** is the largest subunit of the membrane-extrinsic ATP synthase subcomplex.

Immunogen | Recombinant maize chloroplast AtpA [P05022](#)

Host | Rabbit

Clonality | Polyclonal

Purity | Serum

Format | Lyophilized

Quantity | 50 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.

Tested applications | Immunogold (IG), Immunoprecipitation (IP), Western blot (WB)

Related products | [AS03 030](#) | Anti-ATP synthase subunit beta, hen antibodies
[AS08 312](#) | Anti-ATP synthase subunit gamma, rabbit antibodies
[AS05 071](#) | Anti-ATP synthase subunit c, rabbit antibodies
[AS08 370](#) | Anti-ATP synthase whole enzyme, rabbit antibodies

Additional information | Sequence of the protein used for eliciting this antibody is also conserved in *Arabidopsis thaliana* AtpA [P56757](#)

Application information

Recommended dilution | 1 : 200 (IG), 1 : 5 000 (WB)

Expected | apparent MW | 55 kDa

Confirmed reactivity | *Arabidopsis thaliana*, *Begonia* sp., *Capsicum annuum*, *Heliobacterium modesticaldum*, *Zea mays*

Predicted reactivity | Dicots and (including *Lilium superbum*) chloroplast AtpA; may cross-react with mitochondrial AtpA; Algae, Cyanobacteria

Not reactive in | No confirmed exceptions from predicted reactivity are currently known.

Additional information

Selected references | [Pao et al. \(2018\)](#). Lamelloplasts and minichloroplasts in Begoniaceae: iridescence and photosynthetic functioning. *J Plant Res.* 2018 Mar 2. doi: 10.1007/s10265-018-1020-2. (ImmunoGold)
[Zhang et al. \(2017\)](#). Nitric oxide induces monosaccharide accumulation through enzyme S-nitrosylation. *Plant Cell Environ.* 2017 Sep;40(9):1834-1848. doi: 10.1111/pce.12989.
[Jeon et al. \(2017\)](#). Functional characterization of chloroplast-targeted RbgA GTPase in higher plants. *Plant Mol Biol.* 2017 Nov;95(4-5):463-479. doi: 10.1007/s11103-017-0664-y.
[Murcha et al. \(2016\)](#). Plant specific Preprotein and Amino Acid Transporter proteins are required for tRNA import into mitochondria. *Plant Physiol.* 2016 Oct 27. pii: pp.01519.2016.
[Camejo et al. \(2015\)](#). Proteomic identification of mitochondrial carbonylated proteins in two maturation stages of pepper fruits. *Proteomics.* 2015 Aug;15(15):2634-42. doi: 10.1002/pmic.201400370.
[Yang et al. \(2015\)](#). Purification and biochemical characterization of the ATP synthase from *Heliobacterium*

Agrisera

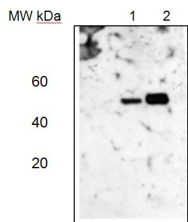
This product is **for research use only** (not for diagnostic or therapeutic use)

contact: support@agrisera.com

Agrisera AB | Box 57 | SE-91121 Vännäs | Sweden | +46 (0)935 33 000 | www.agrisera.com

modesticaldum. Protein Expr Purif. 2015 May 12. pii: S1046-5928(15)00111-4. doi: 10.1016/j.pep.2015.05.006.

Application example



Western blot

Lane 1: *Arabidopsis thaliana* total leaf protein extract;
Lane 2: *Zea mays* total leaf protein extract
5 µg of total protein were loaded per each lane.

Experimental conditions:

Proteins were separated in a 12% or 5-15% gradient gel following by a transfer to nitrocellulose membrane. Membrane was blocked with TBST + 4% non-fat dried milk, 20 min following by three washes in TBST. Incubation time with primary and secondary antibodies was 1 hr primary, 30 min for secondary antibodies followed by reaction development using chemiluminescence.