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

Product no AS16 3976

AtpB | Beta subunit of ATP synthase, mitochondrial

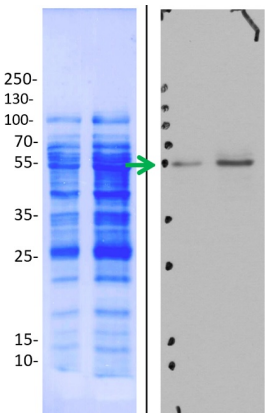
Product information

Immunogen	KLH-conjugated synthetic peptide derived from available plant, algal mitochondrial sequences of beta subunits of F-type ATP synthases, including *Arabidopsis thaliana* ATP synthase subunit beta-1 UniProt:P83483, TAIR:AT5G08670 ATP synthases subunit beta-2 UniProt:P83484, TAIR: AT5G08690, ATPase subunit beta-3, UniProt: Q9C5A9, TAIR:AT5G08680, which belong to mitochondrial respiratory chain complex I.
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	50 µl
Reconstitution	For reconstitution add 50 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 the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.
Additional information	Lack of antibody reactivity was confirmed on chloroplast fraction. This product can be sold containing ProClin if requested.

Application information

Recommended dilution	1 : 1000-1 : 5000 (WB)
Expected | apparent MW	59,6 | 55 kDa
Confirmed reactivity	*Arabidopsis thaliana, Brassica oleracea* var. botrytis cv. 'Diadom'
Predicted reactivity	*Chlamydomonas reinhardtii, Nicotiana tabacum, Oryza sativa, Phaeodactylum tricornutum* Species of your interest not listed? Contact us
Not reactive in	*Dunaliella salina*
Selected references	Wei et al. (2019). Arabidopsis mtHSC70-1 plays important roles in the establishment of COX-dependent respiration and redox homeostasis. J Exp Bot. 2019 Aug 6. pii: erz357. doi: 10.1093/jxb/erz357.

Application example



10 and 20 µg of mitochondrial proteins from cauliflower (*Brassica oleracea* var. botrytis cv. 'Diadom') curds (inflorescences) isolated as described by Rurek et al., 2015 (doi: 10.1016/j.bbabio.2015.01.005) were denatured with standard sample buffer (final concentrations in the sample: 2% SDS, 10% glycerol, 50 mM Tris-HCl pH 6.8, 0.1% bromophenol blue, 1% b-mercaptoethanol) at 80oC for 10 min. Proteins were separated on 12% SDS-PAGE and blotted 1h to Immobilon-P (Millipore) using standard Towbin buffer (25 mM Tris, 192 mM glycine, pH 8.3, 20% methanol) supplemented with SDS (0.1%) and semi-dry transfer apparatus (TE77 PWR, Hoefer). Blots were CBB R250 briefly stained (CBB was dissolved in 50% methanol, 7% acetic acid), destained (with this solution without CBB) and wet-scanned (Laser Jet Pro 400 color MFP scanner, Hewlett-Packard). Blots were blocked with 5% skimmed milk (dissolved in PBS-T containing 0.1% Tween 20) in 1h, RT with agitation. Blots were

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incubated in the primary antibody at a dilution of 1: 1000 for overnight (15 h) at +4ºC with agitation in PBS-T. The antibody solution was decanted and the blot was rinsed briefly, then washed 3 times for 10 min in copious amounts of PBS-T at RT with agitation. Blot was incubated in secondary antibody (anti-rabbit IgG horse radish peroxidase conjugated, from Agrisera; product # AS09 602) diluted to 1:30 000 in 2% milk/ PBS-T for 1h at RT with agitation. The blot was washed as above and developed for 1 min with chemiluminescent detection reagent. Exposure time was: 10, 20, 30 seconds and 1 minute and is indicated on the figure above. MW marker: PageRuler Plus (product #26619) Thermo Scientific (on Western images as dots at the left side on the panels). In red- lot 15D 3650, in blue- lot 16D 2201.

Courtesy of Dr. Michał Rurek, Department of Molecular & Cellular Biology, Faculty of Biology, Adam Mickiewicz University in Poznań, Poland