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product AS09 457

AtpG | ATPsynthase subunit II b', chloroplastic

product information

background	**ATP synthase** produces ATP from ADP in the presence of a proton gradient across the membrane. F-type ATPases have two components, CF(1) - the catalytic core - and CF(0) - the membrane proton channel. CF(1) has five subunits: alpha(3), beta(3), gamma(1), delta(1), epsilon(1). CF(0) has three main subunits: a, b and c. Alternative names: ATPase subunit II, ATP synthase F(0) sector subunit b'
immunogen	KLH-conjugated mix of synthetic peptide derived from *Arabidopsis thaliana* AtpG Q0WMW8 and *Chlamydomonas reinhardtii* ATP synthase subunit b' A8J785
antibody format	rabbit, polyclonal, serum; lyophilized
quantity	100 µl - 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	Western blot (WB)
additional information	to be added when available

application information

recommended dilution	1: 10 000 (WB)
expected | apparent MW	22.4 kDa (*Chlamydomonas reinhardtii*) 15.9 kDa (*Arabidopsis thaliana*)
confirmed reactivity	*Arabidopsis thaliana, Chlamydomonas reinhardtii*
predicted reactivity	dicots including: *Sorghum bicolor*, monocots including: *Oryza sativa*, *Zea mays*, algae *Volvox carteri*
not reactive in	no confirmed exceptions from predicted reactivity known in the moment
additional information	Antibody reactivity for *Arabidopsis thaliana* has been confirmed on membrane fraction.
selected references	to be added when available. Antibodies released in November 2009.

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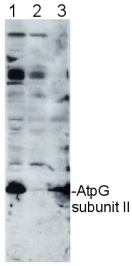
application example



10 ug of chlorophyll/well of *Chlamydomonas reinhardtii* total cell extract **(1)**, *Chlamydomonas reinhardtii* subunit II deletion mutant thylakoid membrane fraction **(2)**, *Arabidospsis thaliana* thylakoid membrane fraction **(3)**, were separated on 12-18% acrylamide-8M urea gel and blotted to nitrocellulose membrane. Filters were blocked 1 h with 5% dry milk in 1 x PBS and probed with anti-ATP synthase subunit gamma antibody (**AS09 457**, 1: 10 000, 1h) and secondary HRP-conjugated anti-rabbit antibody (1: 10 000, 1 h) in 1 x PBS containing 5% dry milk. All steps were performed at RT with agitation. Signal was detected with standard ECL (GE Healthcare), exposure time was 1 min.

Arabidopsis membrane preparation has been done according to Lezhneva et al. (2008) A novel pathway of cytochrome c biogenesis is involved in the assembly of the cytochrome b6f complex in arabidopsis chloroplasts. J Biol. Chem., 283:24608-24616 and *Chlamydomonas* membranes were prepared according to Chua & Bennoun (1975) Thylakoid membrane polypeptides of Chlamydomonas reinhardtii: wild-type and mutant strains deficient in photosystem II reaction center. PNAS 72:2175-2179

Courtesy Dr. Yves Choquet