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product **AS07 251**

FtsH10 | ATP-dependent zinc metalloprotease FtsH10 (mitochondrial)

product information

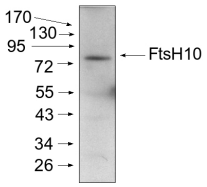
Background	One of the several classes of mitochondrial proteases is membrane bound, ATP dependent FtsH protease. Their function is very important for the control of protein quality and quantity by degradation of unassembled subunits. FtsH10 is localized in mitochondria. Alternative names: cell division protease ftsH homolog 10, mitochondrial, AtFtsH10
Immunogen	KLH-conjugated peptide located near C-terminus chosen from sequence of *Arabidopsis thaliana* FtsH10 Q8VZI8, At1g07510
Host	Rabbit
Clonality	Polyclonal
Purity	Serum
Format	Lyophilized
Quantity	200 µl
Reconstitution	For reconstitution add 200 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	Blue Native PAGE (BN-PAGE), Immunoprecipitation (IP)
Related products	AS11 1789S | FtsH2 positive control/quantitation standard AS11 1789 | anti-FtsH1-11 | ATP-dependent zinc metalloprotease FtsH1-11 AS16 3930 | anti-FtsH1 + FtsH5 | ATP-dependent zinc metalloprotease FtsH1 + FtsH5 (chloroplastic) AS16 3929 | anti-FtsH2 + FtsH8 | ATP-dependent zinc metalloprotease FtsH2 + FtsH8 (chloroplastic) AS07 204 | anti-FtsH3 + FtsH10 | ATP-dependent zinc metalloprotease FtsH3 + FtsH10 (mitochondrial) AS07 205 | anti-FtsH4 | ATP-dependent zinc metalloprotease FtsH4 (mitochondrial) AS05 094A | anti-FtsH6 | ATP-dependent zinc metalloprotease FtsH6 (chloroplastic) AS06 130 | anti-FtsH9 | ATP-dependent zinc metalloprotease FtsH9 (chloroplastic) Antibodies to other proteins involved in photosynthesis Plant protein extraction buffer Secondary antibodies
Additional information	Blue-native (2D BN/SDS-PAGE) methodology has been described in Piechota et al. 2010

Application information

Recommended dilution	1 : 1000 (WB)
Expected | apparent MW	84 kDa
Confirmed reactivity	*Arabidopsis thaliana*
Predicted reactivity	*Arabidopsis thaliana*
Not reactive in	No confirmed exceptions from predicted reactivity are currently known.
Additional information	
Selected references	Piechota et al. (2015). Unraveling the functions of type II-prohibitins in Arabidopsis mitochondria. Plant Mol Biol. 2015 Apr 21.

Kwasniak et al. (2013). Silencing of the Nuclear RPS10 Gene Encoding Mitochondrial Ribosomal Protein Alters Translation in Arabidiopsis Mitochondria. Plant Cell, May 30.
Quesada et al. (2011). Arabidopsis RUGOSA2 encodes an mTERF family member required for mitochondrion, chloroplast and leaf development. Plant J.

Application example



Mitochondrial preapration from *Arabidopsis thaliana* mitochondria was separated on 10% acrilamide gel and electrophoresis prepared according to Schägger and von Jagov (Anl. Biochem., 1987, 166:368-379). After running the gel, proteins were transferred to nitrocellulose membrane using wet transfer (0.22% CAPS, pH 11). Transfer was checked by Ponceau S staining. Blot was destained by several quick washings in distilled water and 1 washing in 1X TBS (10 mM T pH 7.5, 150 mM NaCl) (10-15 min.).Blot was blocked by 1.5 hour in 5% milk in TBST (1X TBS, 0,1 20) After blocking blot was washed quickly twice in TBST and incubated 2 hours with primary antibody (dilution 1: 1000 TBST (dilution 1:1000). Washing: two quick washings in TBST and 3 x 10 min. washings in TBST. Then blot was incubated 45-60 min. with a secondary anti-rabbit antibodies conjugated to peroxidase (dilution 1:10000) in TBST. Washing: as above. After washing blot was incubated 1-2 min. in ECL solution and exposed to Kodak autoradiography film. Exposure time was 15-60 seconds.

Mitochondria were isolated as described by Urantowka et al. (Plant Mol Biol, 2005, 59:239-52). Mitochondrial pellets were suspended in 1X Laemmli buffer (5% beta-mercaptoetanol, 3.7% glycerol, 1.1% SDS, 23 mM Tris-HCl pH 6.8, 0.01% bromophenol blue), heated (95 ºC, 5 min.) and centrifuged (13000 rpm, 1 min.).

Courtesy Dr. J. Piechota, University of Wroclaw, Poland