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Product no AS07 205

Anti-FtsH4 | ATP-dependent zinc metalloprotease FtsH4 (mitochondrial)

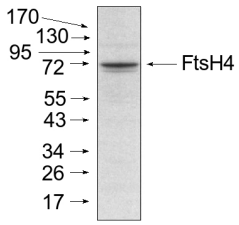
Product information

Immunogen	KLH-conjugated peptide derived from sequence of *Arabidopsis thaliana* FtsH4 UniProt: O80983, TAIR: At2g26140
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Lyophilized
Quantity	200 µg
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 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.

Application information

Recommended dilution	1 : 500 (WB)
Expected | apparent MW	77 | 72 kDa
Confirmed reactivity	*Arabidopsis thaliana, Brassica oleracea* var. botrytis
Predicted reactivity	*Brassica sp.* Species of your interest not listed? Contact us
Not reactive in	*Solanum lycopersicum*
Selected references	Opalińska et al. (2017). Identification of Physiological Substrates and Binding Partners of the Plant Mitochondrial Protease FTSH4 by the Trapping Approach. Int J Mol Sci. 2017 Nov 18;18(11). pii: E2455. doi: 10.3390/ijms18112455. Dolzblasz et al. (2016). The mitochondrial protease AtFTSH4 safeguards Arabidopsis shoot apical meristem function. Sci Rep. 2016 Jun 20;6:28315. doi: 10.1038/srep28315. Rurek et al. (2015). Biogenesis of mitochondria in cauliflower (Brassica oleracea var. botrytis) curds subjected to temperature stress and recovery involves regulation of the complexome, respiratory chain activity, organellar translation and ultrastructure. Biochim Biophys Acta. 2015 Jan 21. pii: S0005-2728(15)00016-X. doi: 10.1016/j.bbabio.2015.01.005. Zhang et al. (2014). Perturbation of auxin homeostasis caused by mitochondrial FtSH4 gene-mediated peroxidase accumulation regulates Arabidopsis architechture. Mol Plant. 2014 Jan 30. Kwasniak et al. (2013). Silencing of the Nuclear RPS10 Gene Encoding Mitochondrial Ribosomal Protein Alters Translation in Arabidiopsis Mitochondria. Plant Cell, May 30.

Application example



Total protein from *Arabidopsis thaliana* mitochondria (20 µg) were 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 chemiluminescent 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 (95ºC, 5 min.) and centrifuged (13000rpm, 1 min.).

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