

product **AS07 251**

**FtsH10 | ATP-dependent zinc metalloprotease FtsH10 (mitochondrial)**

## product information

<b>Background</b>	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
<b>Immunogen</b>	<u>KLH</u> -conjugated peptide located near C-terminus chosen from sequence of <i>Arabidopsis thaliana</i> FtsH10 <u>Q8VZ18</u> , <u>At1g07510</u>
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Purity</b>	Serum
<b>Format</b>	Lyophilized
<b>Quantity</b>	200 µl
<b>Reconstitution</b>	For reconstitution add 200 µl of sterile water.
<b>Storage</b>	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.
<b>Tested applications</b>	Blue Native PAGE (BN-PAGE), Immunoprecipitation (IP)
<b>Related products</b>	<u>AS11 1789S</u>   FtsH2 positive control/quantitation standard <u>AS11 1789</u>   anti-FtsH1-11   ATP-dependent zinc metalloprotease FtsH1-11 <u>AS16 3930</u>   anti-FtsH1 + FtsH5   ATP-dependent zinc metalloprotease FtsH1 + FtsH5 (chloroplastic) <u>AS16 3929</u>   anti-FtsH2 + FtsH8   ATP-dependent zinc metalloprotease FtsH2 + FtsH8 (chloroplastic) <u>AS07 204</u>   anti-FtsH3 + FtsH10   ATP-dependent zinc metalloprotease FtsH3 + FtsH10 (mitochondrial) <u>AS07 205</u>   anti-FtsH4   ATP-dependent zinc metalloprotease FtsH4 (mitochondrial) <u>AS05 094A</u>   anti-FtsH6   ATP-dependent zinc metalloprotease FtsH6 (chloroplastic) <u>AS06 130</u>   anti-FtsH9   ATP-dependent zinc metalloprotease FtsH9 (chloroplastic)  <u>Antibodies to other proteins involved in photosynthesis</u>  <u>Plant protein extraction buffer</u>  <u>Secondary antibodies</u>

**Additional information** | Blue-native (2D BN/SDS-PAGE) methodology has been described in Piechota et al. 2010

## Application information

<b>Recommended dilution</b>	1 : 1000 (WB)
<b>Expected   apparent MW</b>	84 kDa
<b>Confirmed reactivity</b>	<i>Arabidopsis thaliana</i>
<b>Predicted reactivity</b>	<i>Arabidopsis thaliana</i>
<b>Not reactive in</b>	No confirmed exceptions from predicted reactivity are currently known.

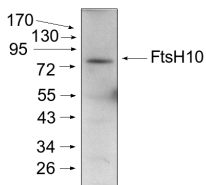
**Additional information**

**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 Arabidopsis 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 preparation** 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 Tris 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% Tween 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-mercaptoethanol, 3.7% glycerol, 1.1% SDS, 23 mM Tris-HCl pH 6.8, 0.01% bromophenol blue), heated (95 °C, 5 min.) and centrifuged (13000 rpm, 1 min.).

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