product AS07 204
FtsH3 + FtsH10 | ATP-dependent zinc metalloprotease FtsH3 + 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. Other names: AtFtsH3, cell division protease ftsH homolog 3, mitochondrial, AtFtsH10, cell division protease ftsH homolog 10, mitochondrial

**Immunogen**
KLH-conjugated peptide derived from sequences of Arabidopsis thaliana FtsH3 and FtsH10 with localization to mitochondria Q84WU8, At2g29080 and Q8VZI8, At1g07510

**Host**
Rabbit

**Clonality**
Polyclonal

**Purity**
Affinity purified serum in PBS, pH 7.4

**Format**
Lyophilized in PBS pH 7.4

**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 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/SDS-PAGE), Western blot (WB)

**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 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)
- AS07 251 | anti-FtsH10 | ATP-dependent zinc metalloprotease FtsH10 (mitochondrial)

**Antibodies to other proteins involved in photosynthesis**
- Plant protein extraction buffer
- Secondary antibodies

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

Application information

**Recommended dilution**
1 : 500-1 : 1000 (WB)

**Expected | apparent MW**
80 kDa

**Confirmed reactivity**
Arabidopsis thaliana

**Predicted reactivity**
Arabidopsis thaliana

**Not reactive in**
No confirmed exceptions from predicted reactivity are currently known.

**Selected references**

application example

**Total protein** from Arabidopsis thaliana mitochondria (20 µg) were separated on 10% acrylamide gel and electrophoresis prepared according to Schägger and von Jagow (Anal. 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). After blocking blot was washed quickly twice in TBST and incubated 2 hours with primary antibody (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 (Sigma, 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 (13000rpm, 1 min.).

Courtesy Dr. J. Piechota