

Anti-ATP-dependent zinc metalloprotease FTSH 1/5, chloroplastic antibody

Catalog: PHY3710A

Product Information

Description:	Rabbit polyclonal antibody
Background:	FtsH is an essential ATP-dependent metalloprotease for protein quality control in the thylakoid membrane of <i>Arabidopsis thaliana</i> chloroplasts. It is required for chloroplast development during leaf growth, and particularly for the specific degradation of photo-damaged D1 protein in the photosystem II (PSII) complex to maintain photosynthesis activity. In the <i>Arabidopsis thaliana</i> genome, 12 genes encoding members of the FtsH family have been identified. Nine of these proteins (FtsH1, 2, 5, 6, 7, 8, 9, 11, and 12) are located in the chloroplast. FtsH1 and FtsH5 are interchangeable in thylakoid membranes.
Synonyms:	FTSH1/5
Immunogen:	KLH-conjugated synthetic peptide (16 aa from Central section) derived from <i>Arabidopsis thaliana</i> FTSH1 (AT1G50250) and FTSH5 (AT5G42270).
Form:	Lyophilized
Quantity:	150 µg
Purification:	Immunogen Affinity Purified
Reconstitution:	Reconstitution with 150 µl of sterile 1×PBS (PH=7.4). "Note: please spin tube briefly prior to opening it to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tube".
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70°C as supplied. 6 months, -20 to -70°C under sterile conditions after reconstitution. 1 month, 2 to 8°C under sterile conditions after reconstitution.
Shipping:	The product is shipped at 4°C. Upon receipt, store it immediately at the temperature recommended above.

Application Information

Recommended Dilution:	Western Blot (1:1000-1:2000) Note: Optimal dilutions/concentrations should be determined by the end user.
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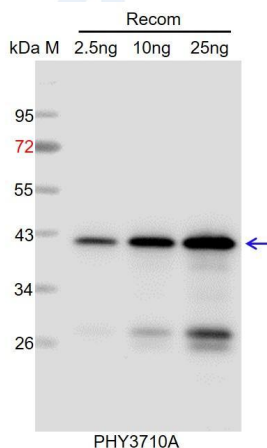
Research Use Only

Expected / apparent MW: 75 kDa

Predicted Reactivity: Among species analyzed, the sequence of the synthetic peptide used for immunization is 100% homologues with the sequence in *Sorghum bicolor*, *Chlamydomonas reinhardtii*, *Gossypium raimondii*, *Nicotiana tabacum*, *Cucumis sativus*, *Panicum virgatum*, *Solanum lycopersicum*, *Solanum tuberosum*, *Spinacia oleracea*, *Vitis vinifera*, *Medicago truncatula*, *Populus trichocarpa*, *Brassica napus*, *Brassica rapa*, *Zea mays*, *Triticum aestivum*, *Hordeum vulgare*, *Oryza sativa*, *Setaria viridis*, and 80-99% homologues with the sequence in *Glycine max*.

For more species homologues information, please contact tech support at tech@phytoab.com.

Application Example



Recom: 2.5 ng, 10 ng and 25 ng recombinant protein containing the peptide for immunization and having a molecular mass of 42 kDa.

Electrophoresis: 12% SDS-PAGE

Transfer: blotting to NC (nitrocellulose) membrane for 1 h.

Blocking: 5% skim milk at RT or 4°C for 1 h.

Primary antibody: 1:1000 dilution overnight at 4°C.

Secondary antibody: 1:10000 dilution using Goat Anti-Rabbit IgG H&L (HRP) (Cat# PHY6000).

Detection: using chemiluminescence substrate and image were captured with CCD camera.