

Anti-Ferredoxin-dependent glutamate synthase 1, chloroplastic/mitochondrial antibody

Catalog: PHY0031A

Product Information

Description:	Rabbit polyclonal antibody
Background:	<p>Ferredoxin-dependent glutamate synthase 1 (also known as Glutamine oxoglutarate aminotransferase) is an enzyme and frequently abbreviated as GOGAT. This enzyme manufactures glutamate from glutamine and α-ketoglutarate, and thus along with glutamine synthetase (abbreviated GS) plays a central role in the regulation of nitrogen assimilation in photosynthetic eukaryotes and prokaryotes. This is of great importance as primary productivity in many marine environments is regulated by the availability of inorganic nitrogen.</p> <p>GOGAT has two forms in plants: ferredoxin-dependent GOGAT (Fd-GOGAT) and NADH-dependent GOGAT (NADH-GOGAT). 95% of GOGAT found in plants is the Fd-GOGAT type. Fd-GOGAT is encoded by two genes, <i>glu1</i> (AT5G04140) and <i>glu2</i> (AT2G41220) found on chromosomes 5 and 2 respectively (in <i>Arabidopsis</i>). Fd-GOGAT (both forms) is highly conserved among plants, red algae, and cyanobacteria.</p>
Synonyms:	GLU1, FD-GOGAT, FERREDOXIN-DEPENDENT GLUTAMATE SYNTHASE, FERREDOXIN-DEPENDENT GLUTAMATE SYNTHASE 1, GLS1, GLUS, GLUTAMATE SYNTHASE 1
Immunogen:	KLH-conjugated synthetic peptide (15 aa from N terminal section) derived from <i>Arabidopsis thaliana</i> GLU1 (AT5G04140).
Form:	Lyophilized
Quantity:	150 μ g
Purification:	Immunogen affinity purified
Reconstitution:	<p>Reconstitution with 150 μl of 0.01 M sterile PBS.</p> <p>"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".</p>
Stability & Storage:	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <p>12 months from date of receipt, -20 to -70°C as supplied.</p> <p>6 months, -20 to -70°C under sterile conditions after reconstitution.</p>

Research Use Only

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.

Expected / apparent MW:

177 kDa

Confirmed Reactivity:

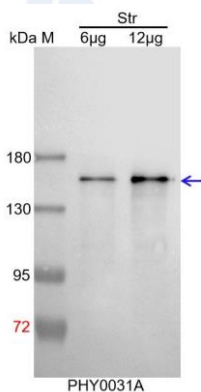
Arabidopsis thaliana

Predicted Reactivity:

Among analyzed species, the sequence of the synthetic peptide used for immunization is 80-99% homologues with the sequence in *Brassica rapa*, *Brassica napus*, *Spinacia oleracea*, *Oryza sativa*, *Sorghum bicolor*, *Zea mays*, *Panicum virgatum*, *Setaria viridis*, *Triticum aestivum*, *Hordeum vulgare*.

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

Application Example



Str: 6 µg and 12 µg stromal protein from *Arabidopsis thaliana*.

Electrophoresis: 8% 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: 1:20000 dilution using Goat Anti-Rabbit IgG

H&L (HRP) (Cat# PHY6000)

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