

# Anti-D1 subunit of Photosystem II, DE-loop antibody

Catalog: PHY0103A

## Product Information

<b>Description:</b>	Rabbit polyclonal antibody
<b>Background:</b>	The D1 protein of Photosystem II (PSII), encoded by the <i>psbA</i> genes, is a subunit of PSII reaction center and is an indispensable component of oxygenic photosynthesis. Due to strongly oxidative chemistry of PSII water splitting, the D1 protein is prone to constant photodamage requiring its replacement, whereas most of the other PSII subunits remain ordinarily undamaged.
<b>Synonyms:</b>	PsbA, 32 kDa thylakoid membrane protein, photosystem II protein D1
<b>Immunogen:</b>	KLH-conjugated synthetic peptide of PsbA (15 aa from Central section) derived from <i>Arabidopsis thaliana</i> (ATCG00020).
<b>Form:</b>	Lyophilized
<b>Quantity:</b>	150 µg
<b>Purification:</b>	Immunogen affinity purified
<b>Reconstitution:</b>	Reconstitution with 150µl of 0.01 M sterile PBS. "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".
<b>Stability &amp; Storage:</b>	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.
<b>Shipping:</b>	The product is shipped at 4°C. Upon receipt, store it immediately at the temperature recommended above.

## Application Information

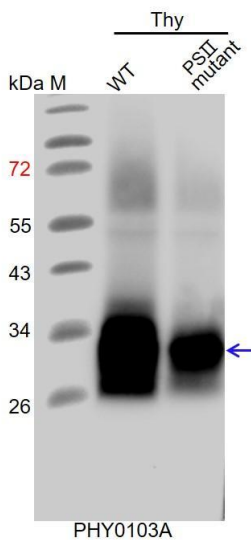
<b>Recommended Dilution:</b>	Western Blot(1:1000-1:2000) Note: Optimal dilutions/concentrations should be determined by the end user.
<b>Expected/apparent MW:</b>	39 / 31 kDa
<b>Confirmed Reactivity:</b>	<i>Arabidopsis thaliana</i>
<b>Predicted Reactivity:</b>	Among species analyzed, the sequence of the synthetic peptide

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used for immunization is 100% homologues with the sequence in *Oryza sativa*, *Solanum tuberosum*, *Glycine max*, *Medicago truncatula*, *Chlamydomonas reinhardtii*, *Nicotiana tabacum*, *Brassica napus*, *Populus trichocarpa*, *Cucumis sativus*, *Spinacia oleracea*, *Brassica rapa*, and 80-99% homologues with the sequence in *Triticum aestivum*, *Hordeum vulgare*, *Zea mays*, *Panicum virgatum*, *Gossypium raimondii*, *Setaria viridis*, *Vitis vinifera*, *Physcomitrium patens*.

For more species homologues information, please contact tech support at [tech@phytoab.com](mailto:tech@phytoab.com).

## Application Example



Thy-WT: thylakoid membrane protein from WT of *Arabidopsis thaliana* leaf containing 0.25  $\mu$ g of chlorophyll.

Thy-PS II mutant: thylakoid membrane protein from an *Arabidopsis* mutant with low accumulation of PS II containing 0.25  $\mu$ g of chlorophyll.

**Electrophoresis:** 15% 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:** 1:2000 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.