

# Anti-Isocitrate dehydrogenase 1, mitochondrial, N-terminal antibody

Catalog: PHY0098A

## Product Information

<b>Description:</b>	Rabbit polyclonal antibody
<b>Background:</b>	NAD-dependent isocitrate dehydrogenase (IDH) is a Krebs cycle enzyme situated in mitochondria. In <i>Arabidopsis thaliana</i> , five genes encode functional IDH subunits that can be classed into two groups based on gene structure and subunit amino acid sequence. Arabidopsis contains two 'catalytic' and three 'regulatory' subunits according to their homology with yeast IDH. IDH1 performs an essential role in the oxidative function of the citric acid cycle.
<b>Synonyms:</b>	IDH1, IDH-I, ISOCITRATE DEHYDROGENASE 1, ISOCITRATE DEHYDROGENASE I
<b>Immunogen:</b>	KLH-conjugated synthetic peptide (15 aa from N terminal section) derived from <i>Arabidopsis thaliana</i> IDH1 (AT4G35260).
<b>Form:</b>	Lyophilized
<b>Quantity:</b>	150 µg
<b>Purification:</b>	Immunogen affinity purified
<b>Reconstitution:</b>	Reconstitution with 150 µl 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>	40 kDa

Research Use Only

**Confirmed Reactivity:**

*Arabidopsis thaliana*

**Predicted Reactivity:**

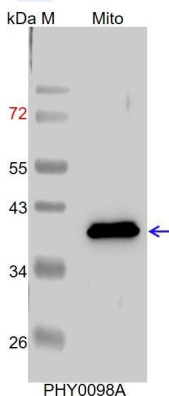
Among species analyzed, the sequence of the synthetic peptide used for immunization is 100% homologues with the sequence in *Brassica rapa*, *Cucumis sativus*, *Spinacia oleracea*, *Setaria viridis*, *Vitis vinifera*, *Populus trichocarpa*, *Gossypium raimondii*, *Glycine max*, *Brassica napus*, and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

The sequence of the synthetic peptide used for immunization is 93% homologues with the sequence in IDH2 (AT2G17130) and IDH3 (AT4G35650).

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

**Application Example**

**Example 1:**



Mito: 10 µg mitochondria protein from *Arabidopsis thaliana*.

**Electrophoresis:** 15% SDS-PAGE

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

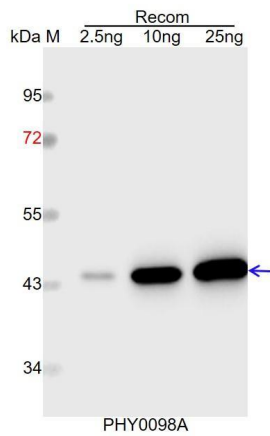
**Blocking:** 5% skim milk at RT or 4°C for 1 h.

**Primary antibody:** 1:2000 dilution overnight at 4°C.

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

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

## Example2:



Recom: 2.5 ng, 10 ng and 25 ng recombinant protein containing the peptide for immunization and having a molecular mass of 44 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.