

# Anti-Heat shock protein 70, mitochondrial antibody

Catalog: PHY1305A

## Product Information

<b>Description:</b>	Rabbit polyclonal antibody
<b>Background:</b>	The 70 kilodalton heat shock proteins (Hsp70s) are a family of conserved ubiquitously expressed heat shock proteins. The Hsp70s are an important part of the cell's machinery for protein folding, and help to protect cells from stress. Hsp70, which exhibits both cytoprotectant and immunoregulatory functions. Members of the Hsp70 family are strongly upregulated by heat stress and toxic chemicals, particularly heavy metals such as arsenic, cadmium, copper, mercury, etc. Arabidopsis plants contain two genes coding for mitochondrial Hsp70-type chaperon-like proteins, AtHscA1 (AT4G37910) and AtHscA2 (AT5G09590).
<b>Synonyms:</b>	HSP70, MTHSC70-1, AtHsp70-9, Heat shock protein 70-9
<b>Immunogen:</b>	KLH-conjugated synthetic peptide (14 aa from N terminal section) derived from <i>Arabidopsis thaliana</i> HSP70 (AT4G37910).
<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.
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Research Use Only

**Expected / apparent MW:** 73 / 70 kDa

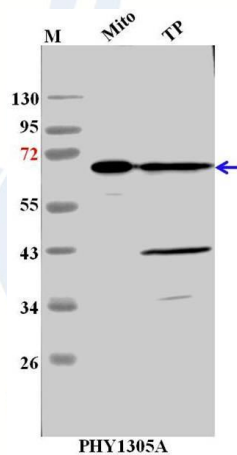
**Confirmed Reactivity:** *Arabidopsis thaliana*

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

The sequence of the synthetic peptide used for immunization is 93% homologues with the sequence in mtHSC70-2(AT5G09590).

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

## Application Example



Mito: 9 µg mitochondria protein from *Arabidopsis thaliana*.

TP: 30 µg total protein from *Arabidopsis thaliana*.

**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:** 1:2000 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.