

This product is **for research use only** (not for diagnostic or therapeutic use)

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Product no AS08 347

HSP70 | Heat shock protein 70 (mitochondrial)

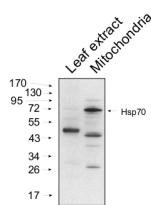
Product information

Immunogen	KLH-conjugated peptide conserved in higher plant mitochondrial HSC70 including <i>Arabidopsis thaliana</i> mtHSC70-1 Q8GUM2, At4g37910 and mtHSC70-2 Q9LDZ0, At5g09590
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen affinity purified serum in PBS pH 7.4.
Format	Lyophilized
Quantity	2 x 50 µg
Reconstitution	For reconstitution add 50 µl of sterile water per tube
Storage	Store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. Please remember to spin the tubes briefly prior to opening them to avoid any losses that might occur from material adhering to the cap or sides of the tube.

Application information

Recommended dilution	1 : 1000 (WB)
Expected apparent MW	73 70 kDa
Confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Brassica oleracea</i> , <i>Hordeum vulgare</i>
Predicted reactivity	<i>Medicago truncatula</i> , <i>Oryza sativa</i> , <i>Phaseolus vulgaris</i> , <i>Pisum sativum</i> , <i>Populus trichocarpa</i> , <i>Spinacia oleracea</i> , <i>Solanum tuberosum</i> , <i>Triticum aestivum</i> , <i>Zea mays</i> , <i>Vitis vinifera</i> Species of your interest not listed? Contact us
Not reactive in	No confirmed exceptions from predicted reactivity are currently known
Selected references	<p>Liu et al. (2023). RBPome identification in egg-cell like callus of <i>Arabidopsis</i>. Biol Chem. 2023 Sep 29;404(11-12):1137-1149.doi: 10.1515/hzs-2023-0195.</p> <p>Lentini et al. (2018). Early responses to cadmium exposure in barley plants: effects on biometric and physiological parameters. Acta Physiol Plant (2018) 40: 178. https://doi.org/10.1007/s11738-018-2752-2.</p> <p>Rurek et al. (2018). Mitochondrial Biogenesis in Diverse Cauliflower Cultivars under Mild and Severe Drought Involves Impaired Coordination of Transcriptomic and Proteomic Response and Regulation of Various Multifunctional Proteins. Preprints 2018, 2018010276 (doi: 10.20944/preprints201801.0276.v1).</p> <p>Opalińska et al. (2017). Identification of Physiological Substrates and Binding Partners of the Plant Mitochondrial Protease FTSH4 by the Trapping Approach. Int J Mol Sci. 2017 Nov 18;18(11). pii: E2455. doi: 10.3390/ijms18112455.</p> <p>Murtha et al. (2016). Plant specific Preprotein and Amino Acid Transporter proteins are required for tRNA import into mitochondria. Plant Physiol. 2016 Oct 27. pii: pp.01519.2016.</p>

Application example



25 µg of *Arabidopsis thaliana* leaf extract and 15 µg *Arabidopsis thaliana* mitochondrial fraction were separated on 10% gel and blotted on nitrocellulose membrane using wet transfer (0.22% CAPS, pH 11). Filters were blocked (1.5h) in 5% milk in TBST (1X TBS, 0.1% Tween 20), incubated with 1: 1000 anti-HSP70 mitochondrial antibodies (2h in TBST) followed by incubation with 1: 10 000 secondary anti-rabbit (1h) HRP-coupled antibodies and visualized with standard ECL on Kodak autoradiography film for 15-60 s. Mitochondria were isolated as described by Urantowka et al. (Plant Mol Biol, 2005, 59:239-52). Mitochondrial pellets were suspended in 1X Laemmli buffer (5% beta-mercaptoethanol, 3.7% glycerol, 1.1% SDS, 23 mM Tris- HCl pH 6.8, 0.01% bromophenol blue), heated (95°C, 5 min.) and centrifuged (13 000rpm, 1 min.). Leaf extracts were prepared as described by Martinez-Garcia et al. (Plant J., 1999, 20:251-7).

Courtesy Dr. Janusz Piechota, Wrocław University, Poland



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