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Product no **AS08 343A**
Cyt c | Cytochrome c

Product information

Background	Cytochrome c is located in inner mitochondrial membrane. It is a small heme protein which, unlike other cytochromes, is highly soluble. This protein is an essential component of the electron transport chain, where it undergoes oxidation and reduction without binding oxygen.
Immunogen	<u>KLH</u> -conjugated synthetic peptide derived from <i>Arabidopsis thaliana</i> cytochrome c protein sequence, UniProt: <u>D7KMK0</u> (C-1) <u>D7LY03</u> (C-2), TAIR: <u>At1g22840</u> (Cyt c1) and <u>At4g10040</u> (Cyt c2)
Host	Rabbit
Clonality	Polyclonal
Purity	Affinity purified serum in PBS, pH 7.4
Format	Lyophilized
Quantity	50 µg
Reconstitution	For reconstitution add 50 µl of sterile water.
Storage	Store lyophilized at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles and Store at -80°C. Please, remember to spin tubes briefly prior to opening them to avoid any losses that might occur from lyophilized material adhering to the cap or sides of the tubes.
Tested applications	Immunolocalization (IL), Western blot (WB)
Related products	<u>AS04 052</u> Anti-COXII, hen antibodies <u>AS04 053A</u> Anti-COXII, rabbit antibodies <u>AS06 151</u> Anti-COXIIb, antibodies <u>Secondary antibodies</u>

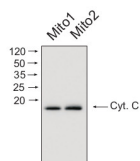
Application information

Recommended dilution	1: 100 (IL), 1 : 5000 (WB)
Expected apparent MW	12.5 14 kDa (for <i>Arabidopsis thaliana</i>)
Confirmed reactivity	<i>Arabidopsis thaliana</i> , <i>Brassica oleracea</i> , <i>Glycine max</i> , <i>Pisum sativum</i> , <i>Zea mays</i>
Predicted reactivity	cytc1 and cytc2 from following species: <i>A. theoprasii</i> , <i>Brassica napus</i> , <i>Brassica oleracea</i> , <i>Cannabis sativa</i> , <i>C. maxima</i> , <i>Chlamydomonas reinhardtii</i> (peptide target partially conserved), <i>Lupinus luteus</i> , <i>Medicago truncatula</i> , <i>Nicotiana tabacum</i> , <i>Oryza sativa</i> , <i>Ostreococcus</i> (peptide target partially conserved), <i>P. aurea</i> , <i>Physcomitrella patens</i> , <i>Ricinus communis</i> , <i>S. nigra</i> , <i>Solanum lycopersivum</i> , <i>Vitis vinifera</i> . Species of your interest not listed? Contact us
Not reactive in	<i>Arabidopsis thaliana</i> CytC6
Additional information	The presence of cytochrome c in the cytosol is a marker of PCD (programmed cell death). For high resolution images, please visit the specific product page at www.agrisera.com
Selected references	<u>Dai</u> et al. (2020). Pentatricopeptide repeat protein DEK46 is required for multi-sites mitochondrial RNA editing and maize seed development. J Exp Bot. 2020 Jul 25;eraa348.doi: 10.1093/jxb/eraa348. <u>Wang</u> et al. (2020) Rerouting of ribosomal proteins into splicing in plant organelles. BioRxiv, DOI: 10.1101/2020.03.03.974766 . <u>Doronina</u> et al. (2019). Structural and Functional Features of the Wheat Embryo Sac's Antipodal Cells during Differentiation. Russ J Dev Biol 50, 194?208. (immunolocalization)

- [Waltz et al. \(2019\)](#). Small is big in Arabidopsis mitochondrial ribosome. *Nat Plants*. 2019 Jan;5(1):106-117. doi: 10.1038/s41477-018-0339-y.
- [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).
- [Dai et al. \(2018\)](#). Maize Dek37 Encodes a P-Type PPR Protein That Affects Cis-splicing of Mitochondrial nad2 Intron 1 and Seed Development. *Genetics*. 2018 Jan 4. pii: genetics.300602.2017. doi: 10.1534/genetics.117.300602.
- [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.
- [Schimmeyer et al. \(2016\)](#). L-Galactono-1,4-lactone dehydrogenase is an assembly factor of the membrane arm of mitochondrial complex I in Arabidopsis. *Plant Mol Biol*. 2016 Jan;90(1-2):117-26. doi: 10.1007/s11103-015-0400-4. Epub 2015 Oct 31.
- [Li et al. \(2016\)](#). Characterization of a novel α -barrel protein (AtOM47) from the mitochondrial outer membrane of Arabidopsis thaliana. *J Exp Bot*. 2016 Nov;67(21):6061-6075. Epub 2016 Oct 6.

For high resolution images, please visit the specific product page at www.agrisera.com

Application example



Mitochondrial proteins (15 ug) from *Arabidopsis thaliana* mitochondria was separated on 16% acrilamide gel and electrophoresis prepared according to Schägger and von Jagov (*Anl. Biochem.*, 1987, 166:368-379). After running the gel, proteins were transferred to PVDF membrane using wet transfer (Roti®-Blot 2, Roth). Transfer was checked by Ponceau S staining. Blot was destained by several quick washings in distilled water and 1 washing in 1X TBS (10 mM T pH 7.5, 150 mM NaCl) (10-15 min.). Blot was blocked by 1.5 hour in 5% milk in TBST (1X TBS, 0.1% Tween 20) After blocking blot was washed quickly twice in TBST and incubated 2 hours with primary antibody (dilution 1: 1000) in TBST. Washing: two quick washings in TBST and 3 x 10 min. washings in TBST. Then blot was incubated 45-60 min. with a secondary anti-rabbit antibodies conjugated to peroxidase (Agrisera AB, dilution 1:10 000, [AS09 602](#)) in TBST. Washing: as above. After washing blot was incubated 1-2 min. in chemiluminescent detection reagent. Chemiluminescence was detected by BioSpectrum® Imaging System (UVP). Exposure time was 5 seconds.

Courtesy Dr. Janusz Piechota, Wrocław University, Poland