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Product no AS04 053A

COXII | Plant Cytochrome oxidase subunit II (affinity purified)

Product information

Immunogen	KLH-conugated synthetic peptide fully conserved in all available protein sequences from eudicots including *Arabidopsis thaliana* AtmG00160, monocots including *Oryza sativa* P04373 *and Physcomitrella patens* Q1XGA9
Host	Rabbit
Clonality	Polyclonal
Purity	Immunogen 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/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.
Additional information	Cellular **[compartment marker]** of mitochondrial inner membrane

Application information

Recommended dilution	1 : 1000 (BN-PAGE), 1 : 1000 (WB)
Expected | apparent MW	29.4 | 30 kDa (for *Arabidopsis thaliana*)
Confirmed reactivity	*Actinidia chinensis, Arabidopsis thaliana (leaf extract and isolated mitochondria), Betula nana, Brassica napus, Brassica oleracea, Cicer aretinum, Cucumis melo, Cucumis sativus, Erophorum vaginatum, Hordeum vulgare, Lilium longifolorum, Nicotiana tabacum, Picea abies, Plantago major, Plantago euryphylla, Silene uniflora, Silene dioica, Physcomitrium patens, Triticum aestivum, Triticum durum* Desf.*, Zea mays, Vicia faba, Quercus rubra*
Predicted reactivity	*Cucumis melo, Glycine max, Gossypium hirsutum, Neurachne alopecuroidea, Neurachne minor, Neurachne muelleri, Oryza sativa, Physcomitrium patens, Pisum sativum, Triticum aestivum, Vigna radiata* Species of your interest not listed? Contact us
Not reactive in	*Saccharina japonica*
Additional information	Antibody detects COXII protein most optimally in membrane fractions. The signal is weak in a in total protein extract. Blue Native gel electrophoresis (BN-PAGE) has been performed on samples solubilized with digitonin (4:1) and loaded at 100 µg/well. Gel thickness was 2 mm with 4.5-16 % gradient.
Selected references	Xue et al.(2023). The PtdIns3P phosphatase MtMP promotes symbiotic nitrogen fixation via mitophagy in Medicago truncatula. iScience. 2023 Sep 15;26(10):107752.doi: 10.1016/j.isci.2023.107752. Hofmann, Wienkoop & Luthje (2022) Hypoxia-Induced Aquaporins and Regulation of Redox Homeostasis by a Trans-Plasma Membrane Electron Transport System in Maize Roots. Antioxidants (Basel). 2022 Apr 25;11(5):836. doi: 10.3390/antiox11050836. PMID: 35624700; PMCID: PMC9137787. Kumar et al. (2022). Proteomic dissection of rice cytoskeleton reveals the dominance of microtubule and microfilament proteins, and novel components in the cytoskeleton-bound polysome, Plant Physiology and Biochemistry, Volume 170,2022,Pages 75-86,ISSN 0981-9428, https://doi.org/10.1016/j.plaphy.2021.11.037. Pavlovic & Kocab. (2021) Alternative oxidase (AOX) in the carnivorous pitcher plants of the genus Nepenthes: what is it good for? Ann Bot. 2021 Dec 18:mcab151. doi: 10.1093/aob/mcab151. Epub ahead of print. PMID: 34922341. Makino et al. (2020). Induction of Terminal Oxidases of Electron Transport Chain in Broccoli Heads Under Controlled Atmosphere Storage. Foods, 9 (4) Wang et al. (2020) Rerouting of ribosomal proteins into splicing in plant organelles. BioRxiv, DOI: 10.1101/2020.03.03.974766. Lang et al. (2011).Simultaneous isolation of pure and intact chloroplasts and mitochondria from moss as the basis for sub-cellular proteomics. Plant Cell Rep. 2011 Feb;30(2):205-15.doi: 10.1007/s00299-010-0935-4.

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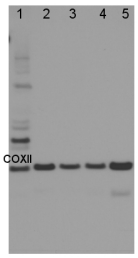

1.8 µg of total protein from (**1**) *Arabidopsis thaliana* leaf , (**2**) *Plantago major* leaf, (**3**) *Plantago europhylla* leaf, (**4**) *Silene dioica* leaf, (**5**) *Silene uniflora* leaf were separated on **4-12%** NuPage (Invitrogen) **LDS-PAGE** and blotted 1h to **PVDF**. Primary antibody was used in 1: 1000 dilution. Detection was performed using chemiluminescence, following manufacture's recommendations.