

product **AS04 053A-200**

**COXII | cytochrome oxidase subunit II (200 µg)**

### product information

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| <b>background</b>             | Cytochrome c oxidase (COX) catalyzes the reduction of oxygen to water in the respiratory chain in the inner mitochondrial membrane. Subunits 1-3 form the functional core of the enzyme complex. Subunit 2 ( <b>COXII</b> ) transfers the electrons from cytochrome c via its binuclear copper A center to the bimetallic center of the catalytic subunit 1. |
| <b>immunogen</b>              | <u>KLH</u> -conjugated synthetic peptide fully conserved in all available protein sequences from eudicots including <i>Arabidopsis thaliana</i> <u>AtmG00160</u> , monocots including <i>Oryza sativa</i> <u>P04373</u> and <i>Physcomitrella patens</i> <u>Q1XGA9</u>   |
| <b>antibody format</b>        | rabbit polyclonal affinity purified serum, in PBS pH 7.4 lyophilized   |
| <b>quantity</b>               | 200 µg for reconstitution add 130 µl of sterile water.   |
| <b>storage</b>                | store lyophilized/reconstituted at -20°C; once reconstituted make aliquots to avoid repeated freeze-thaw cycles. 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.  |
| <b>tested applications</b>    | western blot (WB)  |
| <b>additional information</b> | cellular <b>[compartment marker]</b> of mitochondrial inner membrane   |

### application information

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|-------------------------------|---|
| <b>recommended dilution</b>   | 1:1000 (WB)   |
| <b>expected   apparent MW</b> | 29.4   30 kDa (for <i>Arabidopsis thaliana</i> )  |
| <b>confirmed reactivity</b>   | <i>Arabidopsis thaliana</i> (leaf extract and isolated mitochondria), <i>Brassica oleracea</i> , <i>Plantago major</i> , <i>Plantago euryphylla</i> , <i>Silene uniflora</i> , <i>Silene dioica</i>   |
| <b>predicted reactivity</b>   | dicots including <i>Glycine max</i> , <i>Pisum sativum</i> , monocots including <i>Oryza sativa</i> , <i>Zea mays</i> , moss <i>Physcomitrella patens</i>   |
| <b>not reactive in</b>        | no confirmed exceptions from predicted reactivity known in the moment   |
| <b>additional information</b> | antibody detects COXII protein in total leaf extracts and isolated mitochondria   |
| <b>selected references</b>    | <u>Lang</u> , E.G.E., S.J. Mueller, S.N.W. Hoernstein, J. Porankiewicz-Asplund, M. Vervliet-Scheebaum, R. Reski (2010). Simultaneous isolation of pure and intact chloroplasts and mitochondria from moss as basis for sub-cellular proteomics. Plant Cell Reports, DOI: 10.1007/s00299-010-0935-4. (open source) |

Mika et al. (2010). Membrane-bound guaiacol peroxidases from maize (*Zea mays* L.) roots are regulated by methyl jasmonate, salicylic acid, and pathogen elicitors. *J Exp. Bot.* 61:831-841.

Leroch et al (2008). Identification of a novel adenine nucleotide transporter in the endoplasmic reticulum of Arabidopsis. *The Plant Cell* 20:438-451.

### application example

**1.8 µg of total protein** from (1) *Arabidopsis thaliana* leaf, (2) *Plantago major* leaf, (3) *Plantago europaylla* 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.

