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**product AS06 170**

# CSD2 | chloroplastic Cu/Zn superoxide dismutase

## product information

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| **background** | Antioxidant system works as a defense against oxidative stress. SOD (superoxide dismutase) catalyzes the dismutation of superoxide into oxygen and H202,. SODs are classified, according to their metal cofactor, as FeSOD, MnSOD, or Cu / ZnSOD. Chloroplasts generally contain Cu/ZnSOD and, in a number of plant species, FeSOD |
| **immunogen** | overexpressed *Arabidopsis thaliana* Cu/ZnSOD O78310 with an N-terminal His-tag. Purified via Ni-column. The His-tag was cleaved and the protein was recovered via ion exchange on a 10 ml resource-Q (Pharmacia) column using a NaCl gradient. Pure fractions after dialysis against PBS has been used for immunization. |
| **antibody format** | rabbit polyclonal serum lyophilized |
| **quantity** | 200 µl for reconstitution add 200 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 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** | western blot (WB) |
| **additional information** | to be added when available |

## application information

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| **recommended dilution** | 1 : 1000 alkaline phosphatase (WB) |
| **expected \| apparent MW** | 22 \| 19 kDa (*Arabidopsis thaliana*) |
| **confirmed reactivity** | *Arabidopsis thaliana, Oryza sativa, Populus* sp. |
| **predicted reactivity** | dicots inlcuding: *Glycine max, Pisum sativum*, monocots inlcluding: *Zea mays*, trees: *Pinus pinaster* |
| **not reactive in** | no confirmed exceptions from predicted reactivity known in the moment |
| **additional information** | Note: Antibody is recognizing 19 kDa protein Csd2 (chloroplastic enzyme) and gives also low but noticeable reactivity to Csd1 (15 kDa) a cytosolic form |

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**selected references**

Juszczak et al. (2012). Natural genetic variation in the expression regulation of the chloroplast antioxidant system among *Arabidopsis thaliana* accessions. Physiol. Plant.

Yu et al. (2011). Comparative proteomic study reveals the involvement of diurnal cycle in cell division, enlargement and starch accumulation in developing endosperm of *Oryza sativa.* J of Proteome Res. Nov, ahead of print

Ghany et al (2008). MicroRNA-mediated systemic down-regulation of copper protein expression in response to low copper availability in Arabidopsis. J.Biol Chem. 283: 15932-15945