

Agrisera

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Product no **AS09 524**

MnSOD | Manganese superoxide dismutase

Product information

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| Immunogen | KLH-conjugated synthetic peptide derived from available MnSOD sequences in di and monocotyl plants including <i>Arabidopsis thaliana</i> O81235 , At3g10920 |
| Host | Rabbit |
| Clonality | Polyclonal |
| Purity | Serum |
| Format | Lyophilized |
| Quantity | 50 µl |
| 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 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. |
| Additional information | Freshly prepared reducing agent like DTT needs to be used in a sample buffer. Otherwise MnSOD will migrate at 50 kDa. |

Application information

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| Recommended dilution | 1 : 2000-1 : 5000 (WB) |
| Expected apparent MW | 25 25 kDa |
| Confirmed reactivity | <i>Arabidopsis thaliana</i> , <i>Armeria maritima</i> , <i>Brassica napus</i> , <i>Brassica oleracea</i> , <i>Iris pumila</i> , <i>Nepeta cataria</i> , <i>Nepeta rtanjiensis</i> , <i>Oryza sativa</i> , <i>Pisum sativum</i> , <i>Salicornia</i> sp. , <i>Solanum tuberosum</i> |
| Predicted reactivity | <i>Gossipium mexicanum</i> , <i>Hordeum vulgare</i> , <i>Musa acuminata</i> , <i>Picea sitchensis</i> , <i>Populus balsamifera</i> sub. <i>trichocarpa</i> , <i>Raphanus sativus</i> , <i>Solanum tuberosum</i> , <i>Triticum aestivum</i> , <i>Vitis vinifera</i> , <i>Zea mays</i> Species of your interest not listed? Contact us |
| Not reactive in | algae, <i>Marchantia polymorpha</i> |
| Selected references | Bastow et al. (2018). Vacuolar Iron Stores Gated by NRAMP3 and NRAMP4 Are the Primary Source of Iron in Germinating Seeds. <i>Plant Physiol.</i> 2018 Jul;177(3):1267-1276. doi: 10.1104/pp.18.00478. Balážová et al. (2018). Zinc oxide nanoparticles phytotoxicity on halophyte from genus <i>Salicornia</i> . <i>Plant Physiol Biochem.</i> 2018 Sep;130:30-42. doi: 10.1016/j.plaphy.2018.06.013 Rurek et al. (2018). Mitochondrial Biogenesis in Diverse Cauliflower Cultivars under Mild and Severe DBalážová rough Involves Impaired Coordination of Transcriptomic and Proteomic Response and Regulation of Various Multifunctional Proteins. Preprints 2018, 2018010276 (doi: 10.20944/preprints201801.0276.v1). Schimmever et al. (2016). L-Galactono-1,4-lactone dehydrogenase is an assembly factor of the membrane arm of mitochondrial complex I in <i>Arabidopsis</i> . <i>Plant Mol Biol.</i> 2016 Jan;90(1-2):117-26. doi: 10.1007/s11103-015-0400-4. Epub 2015 Oct 31. Yin et al. (2016). Comprehensive Mitochondrial Metabolic Shift during the Critical Node of Seed Ageing in Rice. <i>PLoS One.</i> 2016 Apr 28;11(4):e0148013. doi: 10.1371/journal.pone.0148013. eCollection 2016. Vuleta et al. (2016). Adaptive flexibility of enzymatic antioxidants SOD, APX and CAT to high light stress: The clonal perennial monocot <i>Iris pumila</i> as a study case. <i>Plant Physiol Biochem.</i> 2016 Mar;100:166-73. doi: 10.1016/j.plaphy.2016.01.011. Epub 2016 Jan 19 Dmitrović et al. (2015). Essential oils of two <i>Nepeta</i> species inhibit growth and induce oxidative stress in ragweed (<i>Ambrosia artemisiifolia</i> L.) shoots in vitro. <i>Acta Physiologica Plantarum</i> , February 2015, 37:64. Dimkoviki and Van Hoewyk (2014). Selenite activates the alternative oxidase pathway and alters primary metabolism in <i>Brassica napus</i> roots: evidence of a mitochondrial stress response. <i>BMC Plant Biol.</i> 2014 Sep 30;14:259. doi: 10.1186/s12870-014-0259-6. Parys et al. (2014). Metabolic Responses to Lead of Metallicolous and Nonmetallicolous Populations of <i>Armeria maritima</i> . <i>Arch Environ Contam Toxicol.</i> 2014 Jul 29. |

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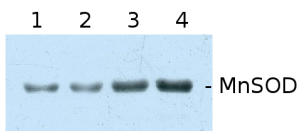
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Momčilović et al. (2014). Improved procedure for detection of superoxide dismutase isoforms in potato, *Solanum tuberosum* L. *Acta Physiologiae Plantarum*, August 2014, Volume 36, Issue 8, pp 2059-2066.

Application example



5 μ g (**1,2**), 10 μ g (**3, 4**) of total protein from *Pisum sativum* were separated on 12% SDS-PAGE and blotted 30 min. to **PVDF**. Blots were blocked (in 5% fat free milk) immediately following transfer in for 1h at RT with agitation. Blots were incubated in the primary antibody at a dilution of 1:2 000 overnight in 4°C with agitation. The antibody solution was decanted and the blot was rinsed briefly twice, then washed 4 times for 5 min in TBS-T at RT with agitation. Blots were incubated in secondary antibody (anti- IgG horse radish peroxidase conjugated, from Agrisera, [AS09 602](#)) diluted to 1:20 000 for 1h at RT with agitation. The blots were washed 4 times for 5 min in TBS-T and 2 times for 5 min in TBS and developed for 1 min with ECL detection reagent according to the manufacturers instructions. Exposure time was 60 seconds.

Courtesy Dr. Elżbieta Romanowska, Warsaw University, Poland