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Product no AS09 524

Anti-MnSOD | Manganese superoxide dismutase

Product information

Immunogen	KLH-conjugated synthetic peptide derived from available MnSOD sequences in di and monocotyl plants including *Arabidopsis thaliana* 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 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	Freshly prepared reducing agent like DTT needs to be used in a sample buffer, Otherwise MnSOD will migrate at 50 kDa

Application information

Recommended dilution	1 : 2000-1 : 5000 (WB)
Expected | apparent MW	25 | 25 kDa
Confirmed reactivity	*Arabidopsis thaliana, Brassiva oleracea, Amaranthus palmeri, Armeria maritima, Brassica napus, Brassica oleracea, Camellia sinensis, Fragaria x ananassa, Lycopersicum esculentum, Iris pumila, Nepeta cataria, Nepeta rtanjensis, Oryza sativa, Pisum sativum, Raphanus sativus, Salicornia* sp. *, Solanum tuberosum, Spinacia oleracea, Stevia rebaudiana*
Predicted reactivity	*Glycine max, Gossipium mexicanum, Hordeum vulgare, Musa acuminata, Picea sitcHensis, Populus balsamifera sub. trichocarpa, Triticum aestivum, Vitis vinifera, Zea mays* Species of your interest not listed? Contact us
Not reactive in	algae, *Marchantia polymorpha, Prunus domestica*
Selected references	Piechowiak et al. (2025), Ozone Treatment Enhances Antioxidant Status and Energy Metabolism in Radish (Raphanus sativus) Sprouts. Springer Nature, Food Bioprocess Technology. Mohapatra et al. (2025). An Improved Method for Isolating Intact Chloroplasts from Different Plant Species. Journal of Plant Growth Regulation, doi.org/10.1007/s00344-025-11911-4. Wittmann at al. (2024).Dual plastid targeting of Protoporphyrinogen Oxidase 2 in Amaranthaceae promotes herbicide tolerance. Plant Physiol. 2024 Feb 8:kiae062.doi: 10.1093/plphys/kiae062. Piechowiak et al. (2024). Elucidation of the mechanism of elicitation of edible sprouts using UV-C radiation. Biocatalysis and Agricultural Biotechnology, Vol 57. Bastow et al. (2018). Vacuolar Iron Stores Gated by NRAMP3 and NRAMP4 Are the Primary Source of Iron in Germinating Seeds. Plant Physiol. 2018 Jul;177(3):1267-1276. doi: 10.1104/pp.18.00478. Balážová et al. (2018). Zinc oxide nanoparticles phytotoxicity on halophyte from genus Salicornia. Plant Physiol Biochem. 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 rought Involves Impaired Coordination of Transcriptomic and Proteomic Response and Regulation of Various Multifunctional Proteins. Preprints 2018, 2018010276 (doi: 10.20944/preprints201801.0276.v1). 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. Yin et al. (2016). Comprehensive Mitochondrial Metabolic Shift during the Critical Node of Seed Ageing in Rice. PLoS One. 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 Iris pumila as a study case. Plant Physiol Biochem. 2016 Mar;100:166-73. doi: 10.1016/j.plaphy.2016.01.011. Epub 2016 Jan 19

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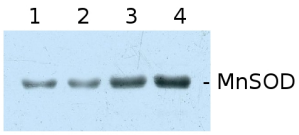

5 µg **(1,2)**, 10 µg **(3, 4)** of total protein from *Pisum sativum* were separated on 12% SDS-PAGE and blotted 30 min. to **PVDF**. Blots were blocked (in 5% fat free milk) immediately following transfer in for 1h at RT with agitation. Blots were incubated in the primary antibody at a dilution of 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