

Anti-Mn SOD (RABBIT) Antibody - 600-401-G14

Code: 600-401-G14

Size: 100 µg

Product Description: Anti-Mn SOD (RABBIT) Antibody - 600-401-G14

Concentration: 1mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Rabbit
Gene Name	SOD2
Species Reactivity	Human, Rat, Mouse, Bovine, Canine, Chicken, Gerbil, Guinea Pig, Pig, Hamster, Monkey, Rabbit, Sheep, Xenopus
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	50% (v/v) Glycerol
Preservative	0.1% (w/v) Sodium Azide
Storage Condition	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	Manganese SOD, IPO B, Mn SOD, SOD2, Superoxide dismutase [Mn], mitochondrial
Application Note	Anti-Mn SOD Antibody is suitable for use in WB, IP, ELISA, and IHC. Expect a band approximately ~25kDa protein corresponding to the molecular mass of Mn superoxide dismutase (SOD) on SDS PAGE immunoblots. Specific conditions for reactivity should be optimized by the end user.
Background	Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in almost every cell in the body. It works by catalyzing the dismutation of the superoxide radical $O_2^{\cdot -}$ to O_2 and H_2O_2 , which are then metabolized to H_2O and O_2 by catalase and glutathione peroxidase. In general, SODs play a major role in antioxidant defense mechanisms. There are two main types of SOD in mammalian cells. One form (SOD1) contains Cu and Zn ions as a homodimer and exists in the cytoplasm. The two subunits of 16 kDa each are linked by two cysteines forming an intra-subunit disulphide bridge (3). The second form (SOD2) is a manganese containing enzyme and resides in the mitochondrial matrix. It is a homotetramer of 80 kDa. The third form (SOD3 or EC-SOD) is like SOD1 in that it contains Cu and Zn ions, however it is distinct in that it is a homotetramer, with a mass of 30 kDa and it exists only in the extra-cellular space. SOD3 can also be distinguished by its heparin-binding capacity.
Purity And Specificity	Anti-Mn SOD Antibody was purified by affinity chromatography. A BLAST analysis was used to suggest cross-reactivity with Mn SOD from Human, Rat, Mouse, Bovine, Canine, Chicken, Gerbil, Guinea Pig, Pig, Hamster, Monkey, Rabbit, Sheep, and Xenopus based on 100% homology with the immunizing sequence. Cross-reactivity with Mn SOD from other sources has not been determined. Oxidative stress research.
ELISA	1:200
Immunohistochemistry	User Optimized
WESTERN BLOT	0.2µg/ml
IHC	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	Mn SOD Antibody was produced from whole rabbit serum prepared by repeated immunizations raised against human Mn SOD.
General Reference	1.Adachi T., et al. (1992). Clin. Chim. Acta. 212: 89-102. 2.Barrister J.V., et al. (1987). Crit. Rev. Biochem. 22:111-180. 3.Furukawa Y., O'Halloran T. (2006). Antioxidants & Redo Signaling. Vol 8, No 5,6. 4.Gao B., et al. (2003). Am J Physiol Lung Cell Mol Physiol 284: L917-L925. 5.Hassan H.M. (1988). Free Radical Biol. Med. 5: 377-385. 6.Kurobe N., et al. (1990) Biomedical Research. 11: 187-194 7.Wispe J.R., et al. (1989) BBA. 994: 30-36. 8.Xiao-Hong Liu., et al. (1993) Brain Research. 625: 29-37.

Related Products

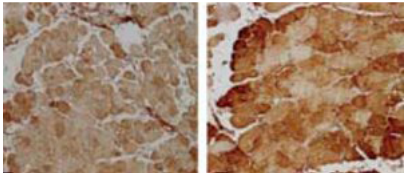
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
BSA-30	BOVINE SERUM ALBUMIN 30% Solution - BSA-30
MB-070	Blocking Buffer for Fluorescent Western Blotting - MB-070

Related Links

NCBI - NP_000627.2	http://www.ncbi.nlm.nih.gov/protein/NP_000627.2
Gene ID - 6648	http://www.ncbi.nlm.nih.gov/sites/entrez?db=gene&term=6648
UniProtKB - P04179	http://www.uniprot.org/uniprot/P04179

Images

1 Immunohistochemistry of rabbit anti-Mn SOD antibody. Tissue: Muscle fibres of LPS-injected rats. Primary Antibody: MnSOD antibody at 1 µg/mL for 1h at RT. Secondary antibody: Peroxidase rabbit secondary at 1:10,000 for 45 min at RT. Localization: Mitochondrion matrix. Staining: MnSOD as white signal.



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