SOD2 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SOD2, Polyclonal Antibody
Full Product Name	SOD2 Antibody, FITC
Product Gene Name	anti-SOD2 antibody
Product Synonym Names	Superoxide dismutase [Mn]; mitochondrial; SOD2
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Purity/Purification	Caprylic Acid Ammonium Sulfate Precipitation Purified
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: SOD2 (MBS7002071) FITC Conjugated Antibody: SOD2 (MBS1492368)
Molecular Weight	19,730 Da
OMIM	147460
3D Structure	ModBase 3D Structure for P04179
Storage Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
Conjugate	FITC
Immunogen	Recombinant human Superoxide dismutase [Mn], mitochondrial protrin (64-175AA)
Santa Cruz Alternative	Potential replacement for Santa Cruz Biotechnology antibody catalog# sc-18503 / sc-18504 / sc-30080
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-SOD2 antibody	ELISA (EIA)
Related Product Information for anti-SOD2 antibody	Destroys superoxide anion radicals which are normally produced within the cells and which are toxic to biological systems.
Other Notes	Small volumes of anti-SOD2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SOD2 purchase	MBS1492368 is an antibody targeting SOD2. Also known as SOD2 Antibody, FITC. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SOD2. It may not necessarily be applicable to this product.

NCBI GI #	67782305
NCBI GeneID	6648

NCBI Accession #	NP_000627.2
UniProt Primary Accession #	P04179
UniProt Secondary Accession #	P78434; Q16792; Q5TCM1; Q96EE6; Q9P2Z3; B2R7R1; B3KUK2; B4DL20; B4E3K9; E1P5A9
UniProt Related Accession #	P04179
GenBank Nucleotide #	NM_000636.2
NCBI Official Full Name	superoxide dismutase
NCBI Official Synonym Full Names	superoxide dismutase 2, mitochondrial
NCBI Official Symbol	SOD2
NCBI Official Synonym Symbols	IPOB; MNSOD; MVCD6
UniProt Protein Name	Superoxide dismutase [Mn], mitochondrial
Protein Family	Na(+)/H(+) antiporter
UniProt Gene Name	SOD2
UniProt Entry Name	SODM_HUMAN
NCBI Protein Information	superoxide dismutase [Mn], mitochondrial
NCBI Summary for SOD2	This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion per subunit. This protein binds to the superoxide byproducts of oxidative phosphorylation and converts them to hydrogen peroxide and diatomic oxygen. Mutations in this gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. Alternate transcriptional splice variants, encoding different isoforms, have been characterized. [provided by RefSeq, Jul 2008]
UniProt Comments for SOD2	SOD2: Destroys superoxide anion radicals which are normally produced within the cells and which are toxic to biological systems. Genetic variation in SOD2 is associated with susceptibility to microvascular complications of diabetes type 6 (MVCD6). These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new- onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis. Belongs to the iron/manganese superoxide dismutase family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Mitochondrial; EC 1.15.1.1; Oxidoreductase Chromosomal Location of Human Ortholog: 6q25.3 Cellular Component: mitochondrial matrix; mitochondrion Molecular Function: identical protein binding; manganese ion binding; superoxide dismutase activity Biological Process: acetylcholine vasodilation involved in regulation of systemic arterial blood pressure; age-dependent response to reactive oxygen species; negative regulation of cell proliferation; negative regulation of neuron apoptosis; oxygen homeostasis; protein homotetramerization; regulation of blood pressure; regulation of transcription from RNA polymerase II promoter; release of cytochrome c from mitochondria; removal of superoxide radicals; response to reactive oxygen species; response to superoxide; superoxide metabolic process Disease: Microvascular Complications Of Diabetes, Susceptibility To, 6
Research Articles on SOD2	**1.** MnSOD up-regulation sustains the Warburg effect via mitochondrial reactive oxygen species and AMPK-dependent signaling in cancer.

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