

Rabbit SOD2 Polyclonal Antibody | anti-SOD2 antibody

SOD2 Antibody

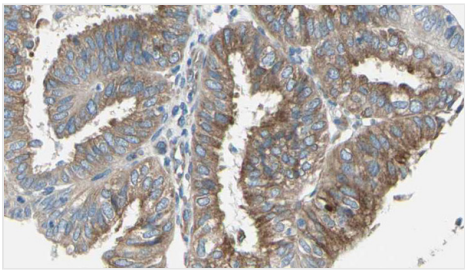
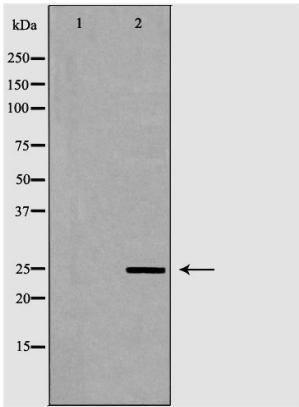
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326163	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

SOD2; Polyclonal Antibody; SOD2 Antibody; Indophenoloxidase B; IPO B; IPOB; Manganese containing superoxide dismutase; Manganese SOD; Manganese superoxide dismutase; Mangano superoxide dismutase; Mn SOD; Mn superoxide dismutase; MNSOD; MVCD6; SOD 2; SODM_HUMAN; Superoxide dismutase [Mn] mitochondrial; Superoxide dismutase [Mn]; mitochondrial; Superoxide dismutase 2 mitochondrial; anti-SOD2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	SOD2 antibody detects endogenous levels of total SOD2
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	222
Applicable Applications for anti-SOD2 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human SOD2
Subcellular Location	Mitochondrion Matrix.
Tissue Specificity	Expression is regulated by KRIT1.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326163 at 1/100 staining Human cervical cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

WB (Western Blot)
Western blot analysis of extracts of K562, using SOD2 antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-SOD2 antibody

Description: The superoxide dismutase family is composed of three metalloenzymes (SOD-1, SOD-2 and SOD-3) that catalyze the oxido-reduction of reactive oxygen species (ROS) such as superoxide anion. The SOD-2 precursor is a 222 amino acid protein that is encoded by nuclear chromatin, synthesized in the cytosol and imported posttranslationally into the mitochondrial matrix. Unlike SOD-1, which is a homodimeric cytosolic Cu-Zn enzyme, SOD-2 is a homotetrameric manganese enzyme (also known as MnSOD) that functions in the mitochondrion. ROS are implicated in a wide range of degenerative processes, including Alzheimer's disease, Parkinson's disease and ischemic heart disease. Homozygous mutant mice, which lack SOD-2, exhibit dilated cardiomyopathy, accumulation of lipid in liver and skeletal muscle, metabolic acidosis, oxidative DNA damage and respiratory chain deficiencies in heart and skeletal muscle. Polymorphisms in the SOD-2 gene have also been implicated in nonfamilial, idiopathic, dilated cardiomyopathy in humans.

Function: Destroys superoxide anion radicals which are normally produced within the cells and which are toxic to biological systems.

Subunit Structure: Homotetramer.

Post-translational Modifications: Nitrated under oxidative stress. Nitration coupled with oxidation inhibits the catalytic activity. Acetylation at Lys-122 decreases enzymatic activity. Deacetylated by SIRT3 upon exposure to ionizing radiations or after long fasting (By similarity). Polyubiquitinated; leading to proteasomal degradation. Deubiquitinated by USP36 which increases protein stability.

Similarity: Belongs to the iron/manganese superoxide dismutase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	67782305
NCBI GeneID	6648
NCBI Accession #	NP_000627.2
NCBI GenBank Nucleotide #	NM_000636.3
UniProt Accession #	P04179; P78434; Q16792; Q5TCM1; Q96EE6; Q9P2Z3; B2R7R1; B3KUK2; B4DL20; B4E3K9; E1P5A9
Molecular Weight	Observed: 25 kDa Predicted: 25 kDa
NCBI Official Full Name	superoxide dismutase
NCBI Official Synonym Full Names	superoxide dismutase 2
NCBI Official Symbol	SOD2
NCBI Official Synonym Symbols	IPOB; IPO-B; MNSOD; MVCD6; Mn-SOD
NCBI Protein Information	superoxide dismutase [Mn], mitochondrial

UniProt Protein Name	Superoxide dismutase [Mn], mitochondrial
UniProt Gene Name	SOD2

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/sod2-antibody-immunohistochemistry-western-blot-elisa/326163>