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SOD3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20996c

Product Information

Application	WB, E
Primary Accession	P08294
Reactivity	Human, Rat
Predicted	Bovine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB50737
Calculated MW	25851

Additional Information

Gene ID	6649
Other Names	Extracellular superoxide dismutase [Cu-Zn], EC-SOD, SOD3
Target/Specificity	This SOD3 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 186-219 amino acids from the C-terminal region of human SOD3.
Dilution	WB~~1:500-1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	SOD3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SOD3 (HGNC:11181)
Function	Secreted antioxidant enzyme that acts as the primary scavenger of superoxide radicals in the extracellular space, converting them to hydrogen peroxide and thereby protecting tissues from oxidative damage (PubMed:12933702, PubMed:15761197). Also preserves nitric oxide bioavailability by preventing the formation of harmful peroxynitrite

	(PubMed:12933702). Stored in intracellular pre-formed vesicles of macrophages and neutrophils and released upon stimulation by inflammatory mediators (PubMed:31326693).
Cellular Location	Secreted, extracellular space. Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:O09164}. Vesicle Note=99% of SOD3/EC-SOD is anchored to heparan sulfate proteoglycans in the tissue interstitium, and 1% is located in the vasculature in equilibrium between the plasma and the endothelium (PubMed:8546689). In macrophages and neutrophiles, extracellular SOD2 in endocytosed and stored in intracellular vesicles (PubMed:31326693)
Tissue Location	Expressed in blood vessels, heart, lung, kidney and placenta. Major SOD isoenzyme in extracellular fluids such as plasma, lymph and synovial fluid (PubMed:7959763). Stored in macrophages intracellular compartments (PubMed:31326693)

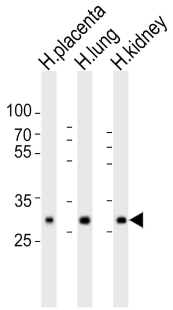
Background

Protect the extracellular space from toxic effect of reactive oxygen intermediates by converting superoxide radicals into hydrogen peroxide and oxygen.

References

Hjalmarsson K.,et al.Proc. Natl. Acad. Sci. U.S.A. 84:6340-6344(1987).
Folz R.J.,et al.Genomics 22:162-171(1994).
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Adachi T.,et al.Free Radic. Biol. Med. 13:205-210(1992).
Nozik-Grayck E.,et al.Int. J. Biochem. Cell Biol. 37:2466-2471(2005).

Images



Western blot analysis of lysates from human placenta, human lung, human kidney tissue lysate (from left to right), using SOD3 Antibody (C-term)(Cat. #AP20996c). AP20996c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.