

Rabbit SOD (Cu/Zn) Polyclonal Antibody | anti-SOD1 antibody

SOD (Cu/Zn) Antibody: Biotin

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103528	Rabbit	Human, Rat, Mouse, Bovine, Monkey, Coral, Dog, Hamster, Pig, Rabbit, Sheep, Xenopus	Immunohistochemistry, ELISA, Immunoprecipitation, Western Blot

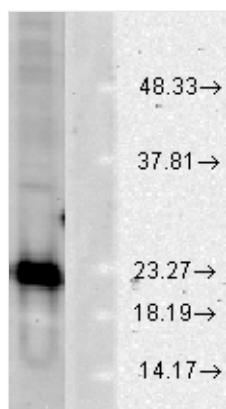
PRODUCT SYNONYMS

SOD (Cu/Zn); Polyclonal Antibody; SOD (Cu/Zn) Antibody: Biotin; Superoxide dismutase1; ALS1; IPOA; SOD1; SOD2; SODC; anti-SOD1 antibody

PRODUCT SPECIFICATIONS

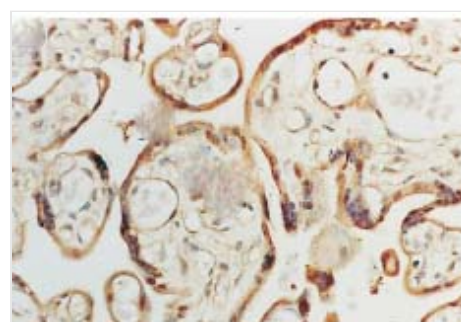
Host	Rabbit
Reactivity	Human, Rat, Mouse, Bovine, Monkey, Coral, Dog, Hamster, Pig, Rabbit, Sheep, Xenopus
Clonality	Polyclonal
Form/Format	Affinity (antigen) Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	154
Applicable Applications for anti-SOD1 antibody	IHC (Immunohistochemistry), ELISA, IP (Immunoprecipitation), WB (Western Blot)
Conjugate	Biotin
Storage Buffer	PBS pH7.0, 50% glycerol, 0.09% sodium azide
Preparation and Storage	-20 degree C

IMAGES



WB (Western Blot)

Western blot analysis of Human Cell line lysates showing detection of SOD1 protein using Rabbit Anti-SOD1 Polyclonal Antibody (SPC-116). Load: 15 ug/protein. Block: 1.5% BSA. Primary Antibody: Rabbit Anti-SOD1 Polyclonal Antibody (SPC-116) at 1:1000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



IHC (Immunohistochemistry)

Immunohistochemistry analysis using Rabbit Anti-SOD1 Polyclonal Antibody (SPC-116). Tissue: Placenta. Species: Human. Primary Antibody: Rabbit Anti-SOD1 Polyclonal Antibody (SPC-116) at 1:100. Courtesy of: Courtesy of Joan Telfer, University of Glasgow.

ADDITIONAL INFORMATION

Related Product Information for anti-SOD1 antibody	Background Info: Detects a ~23kDa (human) and 19kDa (other species) proteins corresponding to the molecular mass of Cu/Zn superoxide dismutase (SOD) on SDS PAGE immunoblots. Scientific Background: Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in almost every cell in the body (3). It works by catalyzing the dismutation of the superoxide radical O₂⁻ to O₂ and H₂O₂, which are then metabolized to H₂O and O₂ by catalase and glutathione peroxidase (2,5). In general, SODs play a major role in antioxidant defense mechanisms (4). 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 extracellular space(9). SOD3 can also be distinguished by its heparin-binding capacity (1).
Product Categories/Family for anti-SOD1 antibody	Oxidative Stress
References	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.Ojika, T. et al. (1991). Acta Histochem Cytochem. 24(5): 489-495. 8.Shinder, G.A. et al. (2001). J. Biol. Chem. 276(16):12791-12796. 9.Wispe, JR et al. (1989) BBA. 994: 30-36.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507149
NCBI GeneID	6647
NCBI Accession #	NP_000445.1
NCBI GenBank Nucleotide #	NM_000454.4
UniProt Accession #	P00441 ; Q16669 ; Q16711 ; Q16838 ; Q16839 ; Q16840 ; Q6NR85 ; A6NHJ0 ; D3DSE4
Molecular Weight	15,936 Da
NCBI Official Full Name	superoxide dismutase
NCBI Official Synonym Full Names	superoxide dismutase 1, soluble
NCBI Official Symbol	SOD1
NCBI Official Synonym Symbols	ALS; SOD; ALS1; IPOA; hSod1; HEL-S-44; homodimer
NCBI Protein Information	superoxide dismutase [Cu-Zn]; superoxide dismutase [Cu-Zn]; SOD, soluble; indophenoloxidase A; Cu/Zn superoxide dismutase; superoxide dismutase, cystolic; epididymis secretory protein Li 44
UniProt Protein Name	Superoxide dismutase [Cu-Zn]
UniProt Gene Name	SOD1
UniProt Synonym Gene Names	hSod1
UniProt Entry Name	SODC_HUMAN

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://stage.aaabiotech.com/polyclonal/sod-cu-zn-antibody-immunohistochemistry-immunoprecipitation-western-blot-elisa/103528>