

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

SOD (Cu/Zn) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103644	Rabbit	Human, Rat, Mouse, Bovine, Monkey, Coral, Dog, Hamster, Pig, Rabbit, Sheep, Xenopus	Immunohistochemistry, ELISA, Immunoprecipitation, Western Blot

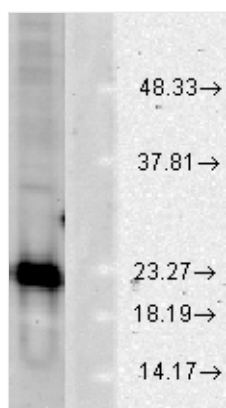
PRODUCT SYNONYMS

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

PRODUCT SPECIFICATIONS

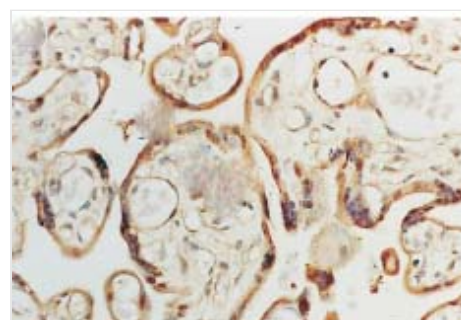
Host	Rabbit
Reactivity	Human, Rat, Mouse, Bovine, Monkey, Coral, Dog, Hamster, Pig, Rabbit, Sheep, Xenopus
Clonality	Polyclonal
Form/Format	Affinity (antigen) Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	154
Applicable Applications for anti-SOD1 antibody	IHC (Immunohistochemistry), ELISA, IP (Immunoprecipitation), WB (Western Blot)
Certificate of Analysis	0.2 ug/mL of SPC-116 was sufficient for detection of Cu/Zn SOD in 20ug of HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:AP as the secondary antibody.
Conjugate	Unconjugated
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.