

Product Datasheet

SOD (Cu/Zn) Antibody: HRP (orb151413)

Description	Rabbit polyclonal to SOD (HRP). Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in almost every cell in the body. It works by catalyzing the dismutation of the superoxide radical O_2^- to O_2 and H_2O_2 , which are then metabolized to H_2O and O_2 by catalase and glutathione peroxidase (2,5). In general, SODs play a major role in antioxidant defense mechanisms. 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. 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 extra-cellular space. SOD3 can also be distinguished by its heparin-binding capacity..
Species/Host	Rabbit
Reactivity	Bovine, Fungi, Human, Mouse, Rat
Conjugation	HRP
Tested Applications	ELISA, IHC, WB
Immunogen	Synthetic Rat Cu/Zn SOD Peptide
Target	SOD1
Preservatives	73.64mM Carbonate, 54.55mM Ethanolamine, 45.45mM Cyanoborohydride, 18.18mM Sodium Hydroxide and 0.23mM Citrate in dH ₂ O
Concentration	1 mg/ml
Storage	Conjugated antibodies should be stored according to the product label
Note	For research use only

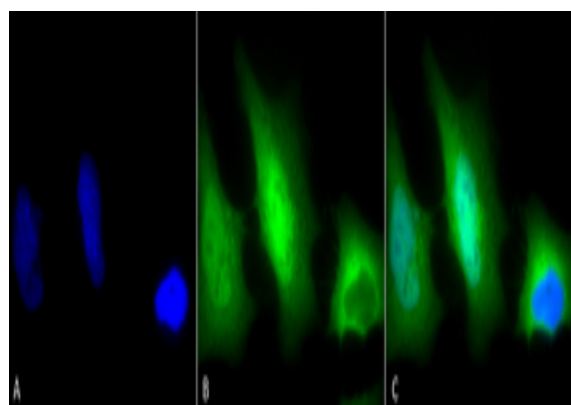
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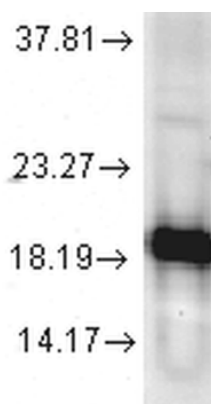
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Application notes	0.5 µg/ml of SPC-115 was sufficient for detection of Cu/Zn SOD in 20 µg of rat brain tissue extract by colorimetric immunoblot analysis using Goat anti-rabbit IgG:AP as the secondary antibody.
Clonality	Polyclonal
MW	19kDa
Uniprot ID	P07632
NCBI	NP_058746.1
Entrez	24786
Dilution Range	WB (1:2000), ICC/IF (1:120)
Expiration Date	12 months from date of receipt.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-SOD (Cu/Zn) Polyclonal Antibody. Tissue: Cervical cancer cell line (HeLa). Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-SOD (Cu/Zn) Polyclonal Antibody at 1:120 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Nucleus. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-SOD (Cu/Zn) Antibody. (C) Composite.



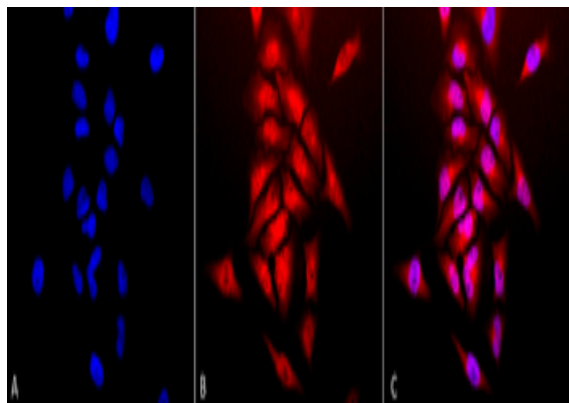
Western blot analysis of Human Cell line lysates showing detection of SOD1 protein using Rabbit Anti-SOD1 Polyclonal Antibody. Load: 15 µgprotein. Block: 1.5% BSA. Primary Antibody: Rabbit Anti-SOD1 Polyclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1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

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