



Anti-SOD1 polyclonal antibody (DPAB2594RH)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Rabbit polyclonal to human superoxide dismutase 1.
Antigen Description	Superoxide dismutase (SOD) is an antioxidant enzyme involved in the defense system against reactive oxygen species (ROS). SOD catalyzes the dismutation reaction of superoxide radical anion (O ₂ ⁻) hydrogen peroxide, which is then catalyzed to innocuous O ₂ and H ₂ O by glutathione peroxidase and catalase. Several classes of SOD have been identified. These include intracellular copper, zinc SOD (Cu, Zn-SOD/SOD-1), mitochondrial manganese SOD (Mn-SOD/SOD-2) and extracellular Cu, Zn-SOD (EC-SOD/SOD-3). SOD-1 is found in all eukaryotic species as a homodimeric 32 kDa enzyme containing one each of Cu and Zn ion per subunit. The manganese containing 80kDa tetrameric enzyme SOD2, is located in the mitochondrial matrix in close proximity to a primary endogenous source of superoxide, the mitochondrial respiratory chain. SOD-3 is a heparin-binding multimer of disulfide-linked dimers, primarily expressed in human lungs, vessel walls and airways. SOD-4 is a copper chaperone for superoxide dismutase (CCS), which specifically delivers Cu to copper/zinc superoxide dismutase. CCS may activate copper/zinc superoxide dismutase through direct insertion of the Cu cofactor.
Immunogen	Recombinant human protein purified from E.coli.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Conjugate	Unconjugated
Applications	WB, IP, IHC-P
Cellular Localization	Cytoplasm
Positive Control	HeLa cells

Format	HEPES with 0.15M NaCl, 0.01% BSA, 0.03% sodium azide, and 50% glycerol.
Size	100 µl
Preservative	0.03% Sodium Azide
Storage	Store for 1 year at -20 °C from date of shipment.

GENE INFORMATION

Gene Name	SOD1 superoxide dismutase 1, soluble [Homo sapiens]
Synonyms	SOD1; superoxide dismutase 1, soluble; ALS; SOD; ALS1; IPOA; hSod1; homodimer; superoxide dismutase [Cu-Zn]; SOD, soluble; OTTHUMP00000107278; OTTHUMP00000107279; indophenoloxidase A; Cu/Zn superoxide dismutase; superoxide dismutase, cystolic; amyotrophic lateral sclerosis (adult); EC 1.15.1.1; Superoxide dismutase 1
Entrez Gene ID	6647
Protein Refseq	NP_000445
UniProt ID	P00441
Chromosome Location	21q22.1; 21q22.11
Pathway	Amyotrophic lateral sclerosis (ALS); FOXA1 transcription factor network; Folate Metabolism; Hemostasis; Huntington's disease; Oxidative Stress; Peroxisome; Platelet Activation; Platelet degranulation; Prion diseases; Response to elevated platelet cytosolic Ca2+; Selenium Pathway
Function	chaperone binding; copper ion binding; metal ion binding; oxidoreductase activity; protein binding; protein homodimerization activity; protein phosphatase 2B binding; superoxide dismutase activity; zinc ion binding