

Product datasheet for **TA326385**

SOD2 Rabbit Polyclonal Antibody [Clone ID: N/A]

Product data:

Product Type:	Primary Antibodies
Clone Name:	N/A
Applications:	IHC
Recommended Dilution:	0.2ug/ml was sufficient for detection of Mn SOD in 20ug of rat brain tissue extract
Reactivity:	Human, Rat, Mouse, Bovine, Canine, Chicken, Gerbil, Guinea Pig, Pig, Hamster, Rabbit, Monkey, Sheep, Xenopus
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Human Mn SOD
Formulation:	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Affinity (antigen) Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	superoxide dismutase 2, mitochondrial
Database Link:	NP_000627 Entrez Gene 20656 Mouse Entrez Gene 24787 Rat Entrez Gene 574097 Monkey Entrez Gene 6648 Human P04179



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Background: 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 . 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 .

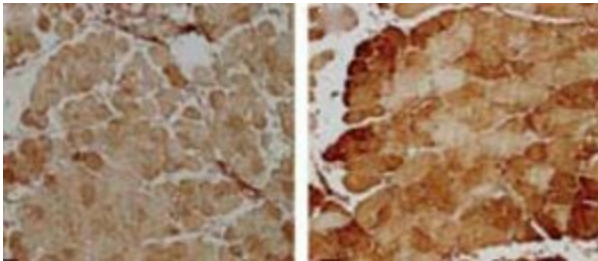
Synonyms: IPOB; MNSOD; MVCD6

Note: Detects a ~25kDa protein corresponding to the molecular mass of Mn superoxide dismutase (SOD) on SDS PAGE immunoblots.

Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Huntington's disease

Product images:



IHC localization of Mn SOD within the muscle fibres of LPS-injected rats (Left: Untreated, Right: treated with 3mmol*kg⁻¹ NAC). Courtesy of E. Barreiro, IMIM, Spain.