

## **Product datasheet for TA326596**

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## **Sod2 Rabbit Polyclonal Antibody**

**Product data:** 

**Product Type:** Primary Antibodies

Applications: IF, WB

Recommended Dilution: 0.5ug/ml was sufficient for detection of Mn SOD in 20ug of rat brain tissue extract

Reactivity: Human, Rat, Mouse, Bovine, Canine, Chicken, Guinea Pig, Pig, Hamster, Rabbit, Monkey,

Sheep, Xenopus, Drosophila

**Host:** Rabbit

Clonality: Polyclonal Immunogen: Rat 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 058747

Entrez Gene 6648 HumanEntrez Gene 20656 MouseEntrez Gene 574097 MonkeyEntrez Gene

24787 Rat P07895





Background:

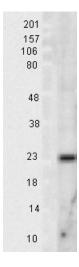
Superoxide dismutase (SOD) is an endogenously produced intracellular enzyme present in almost every cell in the body . It works by catalyzing the dismutation of the superoxide radical O2? to O2 and H2O2, which are then metabolized to H2O and O2 by catalase and glutathione peroxidase . In general, SODs 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: IPO-B; Mn-SOD; MNSOD; MVCD6

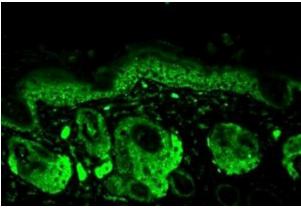
**Note:** Detects a ~25kDa protein corresponding to the molecular mass of Mn superoxide dismutase

(SOD) on SDS PAGE immunoblots.

## **Product images:**



Western blot analysis of Mn SOD in rat tissue lysates, using a 1:1000 dilution of the antibody



Mn SOD visualized using the antibody