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SOD (Mn) Antibody
Catalog # ASM10382

Specification

SOD (Mn) Antibody - Product Information

Application	**WB, IHC, IP**
Primary Accession	P04179
Other Accession	NP_000627.2
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat, Rabbit, Hamster, Monkey, Pig, Chicken, Bovine, Xenopus, Dog, Sheep, Guinea Pig**
Clonality	**Polyclonal**

Description
Rabbit Anti-Human SOD (Mn) Polyclonal

Target/Specificity
Detects ~25kDa.

Other Names
Manganese SOD Antibody, IPO B Antibody, Mn SOD Antibody, SOD2 Antibody

Immunogen
Human Mn SOD

Purification
Protein A Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
0.2 µg/ml of SPC-118 was sufficient for detection of Mn SOD in 20 µg of rat brain tissue extract by colorimetric immunoblot analysis using Goat anti-mouse IgG:AP as the secondary antibody.

Cellular Localization
Mitochondrion | Mitochondrion Matrix

SOD (Mn) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence

- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SOD (Mn) Antibody - Images

SOD (Mn) Antibody - 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 extra-cellular space (7). SOD3 can also be distinguished by its heparin-binding capacity (1).

SOD (Mn) Antibody - References

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