10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SOD1 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1289a

Specification

SOD1 Antibody - Product Information

Application	**WB, IF, FC**
Primary Accession	P00441
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**18kDa KDa**

Description
SOD1 (superoxide dismutase 1, soluble), also known as ALS. The protein binds copper and zinc ions and is one of two isozymes responsible for destroying free superoxide radicals in the body. The encoded isozyme is a soluble cytoplasmic protein, acting as a homodimer to convert naturally-occuring but harmful superoxide radicals to molecular oxygen and hydrogen peroxide. The other isozyme is a mitochondrial protein. Mutations in this gene have been implicated as causes of familial amyotrophic lateral sclerosis (ALS), a progressive degenerative disease of motor neurons. Rare transcript variants have been reported for this gene.

Immunogen
Purified recombinant fragment of human SOD1 expressed in E. Coli.

Formulation
Ascitic fluid containing 0.03% sodium azide.

SOD1 Antibody - Additional Information

Gene ID 6647

Other Names
Superoxide dismutase [Cu-Zn], 1.15.1.1, Superoxide dismutase 1, hSod1, SOD1

Dilution
WB~~1/500 - 1/2000
IF~~1/200 - 1/1000
FC~~1/200 - 1/400

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SOD1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SOD1 Antibody - Protein Information

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Name SOD1 (HGNC:11179)

Function
Destroys radicals which are normally produced within the cells and which are toxic to biological systems.

Cellular Location
Cytoplasm. Mitochondrion. Nucleus. Note=Predominantly cytoplasmic; the pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and accumulates in mitochondria.

SOD1 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

SOD1 Antibody - Images

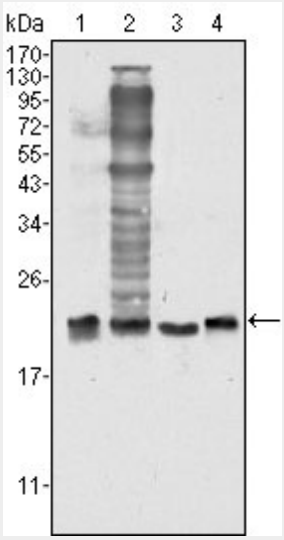
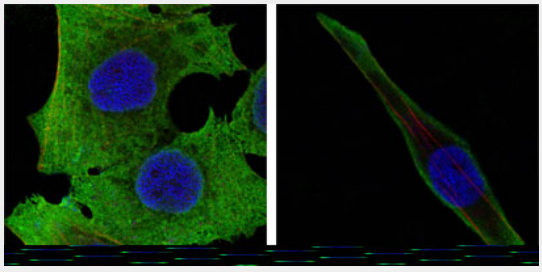


Figure 1: Western blot analysis using SOD1 mouse mAb against Hela (1), NIH/3T3 (2), A549 (3) and A431 (4) cell lysate.



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Figure 2: Confocal immunofluorescence analysis of PANC-1 (left) and SKBR-3 (right) cells using SOD1 mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.

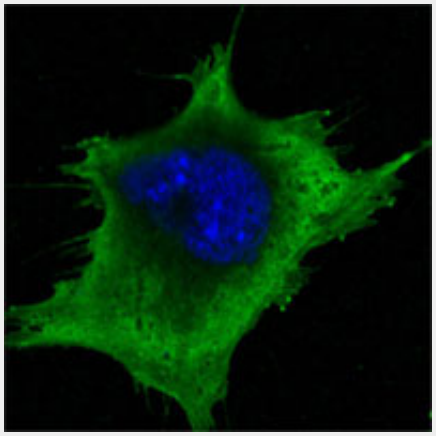


Figure 3: Confocal immunofluorescence analysis of 3T3-L1 cells using SOD1 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye.

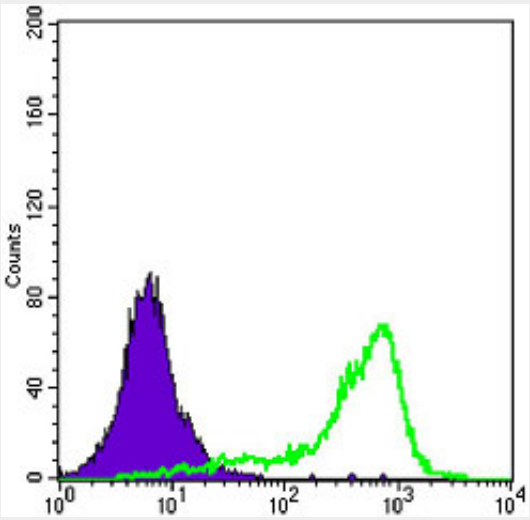


Figure 4: Flow cytometric analysis of A431 cells using SOD1 mouse mAb (green) and negative control (purple).

SOD1 Antibody - References

1. Apoptosis. 2005 May;10(3):499-502. 2. Hum Mol Genet. 2008 Nov 1;17(21):3303-17.