10320 Camino Santa Fe, Suite G
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Superoxide Dismutase 4 (SOD-4) Antibody (3A1)

Mouse Monoclonal Antibody
Catalog # ABV11164

Specification

Superoxide Dismutase 4 (SOD-4) Antibody (3A1) - Product Information

Application	**WB**
Primary Accession	O14618
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG 2a**
Calculated MW	**29041**

Superoxide Dismutase 4 (SOD-4) Antibody (3A1) - Additional Information

Gene ID 9973

Positive Control	**WB analysis of HeLa and Jurkat cell lysates. IHC analysis : normal human lymphoid tissue, normal human tonsillar tissue**
Application & Usage	**Western blot: 1:2000, IP: 2 µl, IHC-P, ELISA.**

Other Names
Superoxide dismutase, SOD4.

Target/Specificity
SOD4

Antibody Form
Liquid

Appearance
Colorless liquid

Formulation
100 µl of antibody in HEPES with 0.15 M NaCl, 0.01 % BSA, 0.03 % sodium azide, and 50 % glycerol

Handling
The antibody solution should be gently mixed before use.

Reconstitution & Storage
-20 °C

Background Descriptions

Precautions

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Superoxide Dismutase 4 (SOD-4) Antibody (3A1) is for research use only and not for use in diagnostic or therapeutic procedures.

Superoxide Dismutase 4 (SOD-4) Antibody (3A1) - Protein Information

Name CCS (HGNC:1613)

Function
Delivers copper to copper zinc superoxide dismutase (SOD1).

Cellular Location
Cytoplasm.

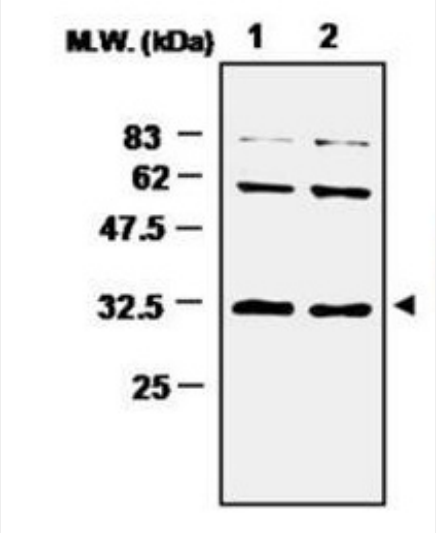
Tissue Location
Ubiquitous.

Superoxide Dismutase 4 (SOD-4) Antibody (3A1) - 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

Superoxide Dismutase 4 (SOD-4) Antibody (3A1) - Images



WB analysis of cell lysates. Lane 1: HeLa cells, Lane 2: Jurkat cells

Superoxide Dismutase 4 (SOD-4) Antibody (3A1) - Background

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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 (O2-) to hydrogen peroxide, which is then catalyzed to innocuous O2 and H2O 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). SOD1 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 80 kDa tetrameric enzyme SOD2, is located in the mitochondrial matrix in close proximity to a primary endogenous source of superoxide, the mitochondrial respiratory chain. SOD3 is a heparin-binding multimer of disulfide-linked dimers, primarily expressed in human lungs, vessel walls and airways. SOD4 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. SOD4 delivers copper to copper zinc superoxide dismutase (SOD1).