

Superoxide Dismutase 2 (SOD-2) Antibody (2A1)

Mouse Monoclonal Antibody Catalog # ABV11162

Specification

Superoxide Dismutase 2 (SOD-2) Antibody (2A1) - Product Information

Application WB
Primary Accession P04179

Reactivity Human, Mouse, Rat

Host Mouse
Clonality Monoclonal
Isotype Mouse IgG 1

Calculated MW 24750

Superoxide Dismutase 2 (SOD-2) Antibody (2A1) - Additional Information

Gene ID 6648

Positive Control WB analysis of HeLa cells, HepG2 cells,

Mouse brain tissue, Rat Brain tissue

lysates

Application & Usage Western blot: 1 μg/ml.

Other Names

Superoxide dismutase, mitochondrial, IPOB, MNSOD, MVCD6.

Target/Specificity

SOD2

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 μ l of antibody in HEPES with 0.15 M NaCl, 0.01 % BSA, 0.03 % sodium azide, and 50 % glycorol

glycerol

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

Superoxide Dismutase 2 (SOD-2) Antibody (2A1) is for research use only and not for use in diagnostic or therapeutic procedures.



Superoxide Dismutase 2 (SOD-2) Antibody (2A1) - Protein Information

Name SOD2

Function

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

Cellular Location

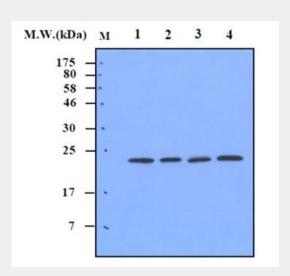
Mitochondrion matrix.

Superoxide Dismutase 2 (SOD-2) Antibody (2A1) - 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 2 (SOD-2) Antibody (2A1) - Images

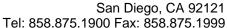


WB analysis of lysates. Lane 1: HeLa cells, Lane 2: HepG2 cells. Lane 3: Mouse brain tissue, Lane 4: Rat Brain tissue.

Superoxide Dismutase 2 (SOD-2) Antibody (2A1) - Background

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. SOD2 destroys radicals which are normally produced within the cells and which are toxic to biological systems.