

Superoxide Dismutase 1 (SOD-1) Antibody

Rabbit Polyclonal Antibody Catalog # ABV11197

Specification

Superoxide Dismutase 1 (SOD-1) Antibody - Product Information

Application WB
Primary Accession P00441
Other Accession AAR21563

Reactivity Human, Mouse, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 15936

Superoxide Dismutase 1 (SOD-1) Antibody - Additional Information

Gene ID 6647

Positive Control Western Blot: 3T3 cell lysate, rat kidney

lysate

Superoxide Dismutase 1, SODC

Application & Usage Western blot: 1:200
Other Names

Target/Specificity

SOD1

Antibody Form

Liquid

AppearanceColorless liquid

Formulation

 $100~\mu g$ or 30 μg (0.5 mg/ml) of antibody in PBS containing 0.01 % BSA, 0.01 % thimerosal, and 50 % glycerol, pH 7.2

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

Superoxide Dismutase 1 (SOD-1) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Superoxide Dismutase 1 (SOD-1) Antibody - Protein Information

Name SOD1 (<u>HGNC:11179</u>)

Function

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

Cellular Location

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

Superoxide Dismutase 1 (SOD-1) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Superoxide Dismutase 1 (SOD-1) Antibody - Images

Superoxide Dismutase 1 (SOD-1) Antibody - Background

Superoxide Dismutase (SOD) is an oxidoreductase that catalyzes the reaction between superoxide anions and hydrogen to yield molecular oxygen and hydrogen peroxide. The enzyme protects the cell against dangerous levels of superoxide. It belongs to the Cu-Zn superoxide dismutase family. It binds copper and zinc ions. The encoded isozyme is a soluble cytoplasmic protein, acting as a homodimer to convert naturally-occurring 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. Rare transcript variants have been reported for this gene. SOD1 destroys radicals which are normally produced within the cells and which are toxic to biological systems. Defects in SOD1 are the cause of amyotrophic lateral sclerosis type 1 (ALS1). ALS1 is a familial form of amyotrophic lateral sclerosis, a neurodegenerative disorder affecting upper and lower motor neurons and resulting in fatal paralysis. Sensory abnormalities are absent. Death usually occurs within 2 to 5 years. The etiology of amyotrophic lateral sclerosis is likely to be multifactorial, involving both genetic and environmental factors. The disease is inherited in 5-10% of cases leading to familial forms.