

Product datasheet

Anti-Superoxide Dismutase 1 antibody ab52950

★★★★★ [2 Abreviews](#) [21 References](#) [2 Images](#)

Overview

Product name	Anti-Superoxide Dismutase 1 antibody
Description	Rabbit polyclonal to Superoxide Dismutase 1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P Unsuitable for: Flow Cyt
Species reactivity	Reacts with: Human Does not react with: Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	Jurkat cell lysate, human placenta and HeLa cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab52950 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (2)	1/5000. Detects a band of approximately 16 kDa (predicted molecular weight: 16 kDa).
IHC-P		1/50 - 1/100. Antigen retrieval is not essential but may optimise staining.

Application notes

Is unsuitable for Flow Cyt.

Target

Function

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

Involvement in disease

Defects in SOD1 are the cause of amyotrophic lateral sclerosis type 1 (ALS1) [MIM:105400]. 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.

Sequence similarities

Belongs to the Cu-Zn superoxide dismutase family.

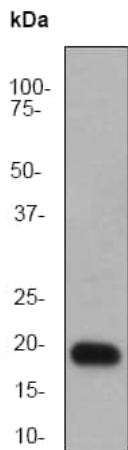
Post-translational modifications

Unlike wild-type protein, the pathogenic variants ALS1 Arg-38, Arg-47, Arg-86 and Ala-94 are polyubiquitinated by RNF19A leading to their proteasomal degradation. The pathogenic variants ALS1 Arg-86 and Ala-94 are ubiquitinated by MARCH5 leading to their proteasomal degradation.
The ditryptophan cross-link at Trp-33 is responsible for the non-disulfide-linked homodimerization. Such modification might only occur in extreme conditions and additional experimental evidence is required.

Cellular localization

Cytoplasm. The pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and accumulates in mitochondria.

Images



Western blot - Anti-Superoxide Dismutase 1 antibody (ab52950)

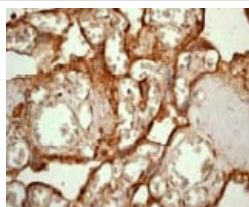
Anti-Superoxide Dismutase 1 antibody (ab52950) at 1/5000 dilution + Jurkat cell lysate at 10 µg

Secondary

goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 16 kDa

Observed band size: 16 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Superoxide Dismutase 1 antibody (ab52950)

ab52950 at 1/50 dilution staining Superoxide Dismutase 1 in human placenta by Immunohistochemistry, Paraffin embedded tissue.

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