

## Product datasheet

# Anti-Superoxide Dismutase 1 antibody ab13498

★★★★★ [23 Abreviews](#) [171 References](#) [1 Image](#)

### Overview

<b>Product name</b>	Anti-Superoxide Dismutase 1 antibody
<b>Description</b>	Rabbit polyclonal to Superoxide Dismutase 1
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, ELISA, IHC-Fr, ICC/IF, IP, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Sheep, Rabbit, Hamster, Cow, Dog, Human, Pig, Xenopus laevis, Drosophila melanogaster, Fish, Monkey, African green monkey, Coral, Mollusk
<b>Immunogen</b>	Synthetic peptide corresponding to Human Superoxide Dismutase 1. Database link: <a href="#">P00441</a>
<b>Positive control</b>	WB: HeLa (Human epithelial cell line from cervix adenocarcinoma)
<b>General notes</b>	<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&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Preservative: 0.1% Sodium azide Constituents: PBS, 50% Glycerol
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	This antibody was purified on an antigen coupled sepharose column.
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

### Applications

## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab13498 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
IHC-P		Use at an assay dependent concentration.
ELISA		Use at an assay dependent concentration. See Downs et al 2002.
IHC-Fr	★★★★★ (3)	Use at an assay dependent concentration.
ICC/IF	★★★★★ (6)	Use at an assay dependent concentration. See Abreview.
IP		Use at an assay dependent concentration. See Shinder et al 2001.
WB	★★★★★ (13)	1/5000. Detects a band of approximately 23 kDa (predicted molecular weight: 16 kDa).

## 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

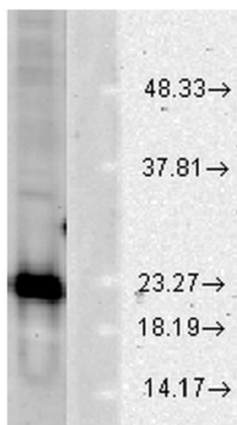
Unlike wild-type protein, the pathogenic variants ALS1 Arg-38, Arg-47, Arg-86 and Ala-94 are polyubiquitinated by RNF19A leading to their proteasomal degradation. The pathogenic variants ALS1 Arg-86 and Ala-94 are ubiquitinated by MARCH5 leading to their proteasomal degradation.

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 (ab13498)

Anti-Superoxide Dismutase 1 antibody (ab13498) at 0.2 µg/ml (2 hrs at RT) + HeLa (Human epithelial cell line from cervix adenocarcinoma) lysate at 15 µg

#### Secondary

Donkey Anti-Rabbit IgG HRP 1 hr at RT

**Predicted band size:** 16 kDa

**Observed band size:** 23 kDa

Block: 1.5% BSA.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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