# abcam

### Product datasheet

## Anti-Superoxide Dismutase 1 antibody ab13499

5 References 2 图像

概述

产**品名称** Anti-Superoxide Dismutase 1抗体

描述 兔多克隆抗体to Superoxide Dismutase 1

**宿主** Rabbit

经测试应用 适用于: IHC-P, WB

种属反应性 与反应: Human

免疫原 Synthetic peptide corresponding to Rat Superoxide Dismutase 1.

常规说明

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.

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

性能

形式 Liquid

**存放说明** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

存储溶液 Preservative: 0.1% Sodium azide

Constituents: PBS, 50% Glycerol (glycerin, glycerine)

纯**度** Immunogen affinity purified

纯**化说明** This antibody was purified on an antigen coupled sepharose column.

**克隆** 多克隆

**同种型** IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab13499于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

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应用	Ab评论	说明
IHC-P		Use a concentration of 2 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 19, 23 kDa (predicted molecular weight: 18 kDa).

#### 靶标

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

systems.

疾病相关 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.

**序列相似性** Belongs to the Cu-Zn superoxide dismutase family.

翻译后修饰 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 reponsible for the non-disulfide-linked homodimerization.

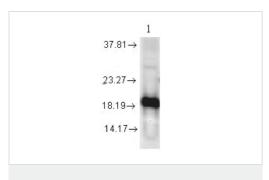
Such modification might only occur in extreme conditions and additional experimental evidence is

required.

细胞定位 Cytoplasm. The pathogenic variants ALS1 Arg-86 and Ala-94 gradually aggregates and

accumulates in mitochondria.

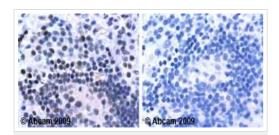
#### 图片



Western blot - Anti-Superoxide Dismutase 1 antibody (ab13499)

Anti-Superoxide Dismutase 1 antibody (ab13499) at 1  $\mu$ g/ml + Cell lysates prepared from mixed human cell lines (A431, A549, HCT116, HeLa, HEK293, HepG2, HL-60, HUVEC, Jurkat, MCF7, PC3 and T98G)

Predicted band size: 18 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Superoxide Dismutase 1 antibody (ab13499)

Ab13499 staining Human normal colon. Staining is localized to the nucleus.

Left panel: with primary antibody at 2 ug/ml. Right panel: isotype control

Sections were stained using an automated system DAKO Autostainer Plus , at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 AR buffer citrate pH 6.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.

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

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