abcam

Product datasheet

Recombinant human Superoxide Dismutase 1 protein ab74916

1 图像

描述

产品名称	重组人Superoxide Dismutase 1蛋白
生物活性	Specific activity is > 90 units/mg, in which one unit will inhibit the rate of reduction of cytochrome c by 50% in a coupled system, using xanthine and Xanthine oxidase at pH 7.8 at 25°C in a 1.5 ml reaction volume. **Activity Assay** Prepare a 1.5 ml reaction mix into a suitable container and pre-chill on ice before use: The final concentrations are 50mM potassium phosphate, 0.1mM ethylendiaminetetraacetic acid, 0.01mM cytochrome C 0.05mM xanthine, 0.005 units xanthine oxidase. Equilibrate to 25°C and monitor at A550nm until the value is constant using a spectrophotometer. Add 50 ul of recombinant SOD protein in various concentrations (0.5ug, 1ug) in assay buffer. Mix by inversion and record the increase at A550nm for 5 minutes.
纯度	> 95 % SDS-PAGE. ab74916 is purified by conventional chromatography techniques.
表达系统	Escherichia coli
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Human
序列	MATKAVCVLK GDGPVQGIIN FEQKESNGPV KVWGSIKGLT EGLHGFHVHE FGDNTAGCTS AGPHFNPLSR KHGGPKDEER HVGDLGNVTA DKDGVADVSI EDSVISLSGD HCIIGRTLVV HEKADDLGKG GNEESTKTGN AGSRLACGVI GIAQ

技术指标

Our **Abpromise guarantee** covers the use of **ab74916** in the following tested applications.

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

应用	SDS-PAGE
形式	Liquid

制备和贮存

稳定性和存储

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

pH: 7.50
Constituents: 0.242% Tris, 10% Glycerol (glycerin, glycerine)

This product is an active protein and may elicit a biological response in vivo, handle with caution.

常规信息

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.

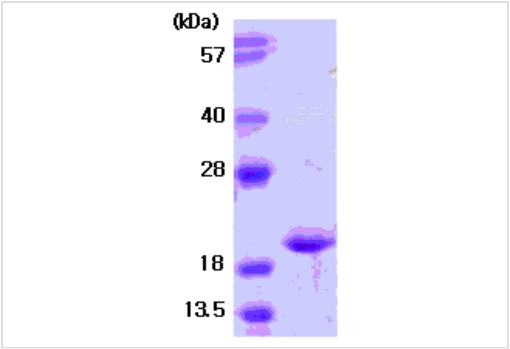
翻译后修饰

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



SDS-PAGE - Recombinant human Superoxide Dismutase 1 protein (ab74916)

15% SDS-PAGE of ab74916 (3µg).

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

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