Datasheet for ABIN7317500

SOD1 Protein (His tag)

Go to Product page

Overview

Quantity:	100 µg
Target:	SOD1
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SOD1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Human SOD1/Superoxide Dismutase 1 Protein (His Tag)
Sequence:	Ala 2-Gln 154
Characteristics:	A DNA sequence encoding the human SOD1 (NP_000445.1) (Ala 2-Gln 154) was expressed, with a polyhistide tag at the N-terminus.
Purity:	> 97 % as determined by reducing SDS-PAGE.

Target Details

Target:	SOD1
Alternative Name:	SOD1/Superoxide Dismutase 1 (SOD1 Products)
Background:	Background: SOD1 belongs to the Cu-Zn superoxide dismutase family. It binds copper and zinc ions and is one of two isozymes responsible for destroying free superoxide radicals in the body. The encoded isozyme is a soluble cytoplasmic protein, acting as a homodimer to convert naturally-occuring but harmful superoxide radicals to molecular oxygen and hydrogen peroxide.

Target Details

	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. Synonym: Superoxide Dismutase [Cu-Zn], Superoxide Dismutase 1, hSod1,ALS,ALS1,HEL-S-44,homodimer,hSod1,IPOA
Molecular Weight:	16.8 kDa
NCBI Accession:	NP_000445
Pathways:	Sensory Perception of Sound, Transition Metal Ion Homeostasis

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile 20 mM Tris, 500 mM NaCl, pH 8.0
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.