Recombinant human SOD1/Cu-Zn SOD protein

Catalog Number: SOD0801

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-154aa

UniProt No.
P00441

NCBI Accession No.
NP_000445.1

Alternative Names
Superoxide dismutase 1 soluble, ALS, SOD, ALS1, IPOA, Cu-Zn superoxide dismutase, Superoxide dismutase 1 soluble, SOD1, Superoxide dismutase 1, soluble ALS 1, Amyotrophic lateral sclerosis 1 Amyotrophic lateral sclerosis 1 adult, Cu/Zn SOD, Cu/Zn superoxide dismutase, Homodimer, Indophenoloxidase A, Mn superoxide dismutase, SOD 1, SOD soluble, SOD2, SODC, Superoxide dismutase 1 soluble, Superoxide dismutase Cu Zn, Superoxide dismutase cystolic,

PRODUCT SPECIFICATION

Molecular Weight
15.9 kDa (154aa) confirmed by MALDI-TOF

Concentration
1mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 7.5) containing 10% glycerol

Purity
> 95% by SDS-PAGE

Endotoxin level
< 1 EU per 1ug of protein (determined by LAL method)

Biological Activity
Specific activity is > 500unit/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 7.5 at 25C.

Tag
Non-Tagged

Application
SDS-PAGE, Enzyme Activity

Storage Condition
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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BACKGROUND

Description

Superoxide dismutase 1 (SOD1) binds copper and zinc ions and is one of three isozymes responsible for destroying free superoxide radicals in the body. The encoded protein neutralizes supercharged oxygen molecules, which can damage cells if their levels are not controlled. Mutations in SOD1 cause a form of familial amyotrophic lateral sclerosis (ALS). Recombinant SOD1 was expressed in E. coli and purified by conventional chromatography techniques.

Amino acid Sequence

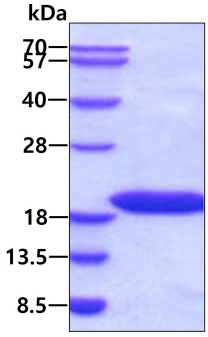
MATKAVCVLK GDGPVQGIIN FEQKESNGPV KVWGSIKGLT EGLHGFHVHE FGDNTAGCTS AGPHFNPLSR KHGGPKDEER HVGDLGNVTA DKDGVADVSI EDSVISLSGD HCIIGRTLVV HEKADDLGKG GNEESTKTGN AGSRLACGVI GIAQ

General References

Conwit R., et al. (2006) Journal of the Neurological Sciences251 (1-2).
Banci L., et al. (2008) PLoS ONE. 3(2):e1677.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.