Recombinant human SOD2/Mn-SOD protein

Catalog Number: ATGP0512

PRODUCT INFORMATION

Expression system
E.coli

Domain
25-222aa

UniProt No.
P04179

NCBI Accession No.
NP_001019636.1

Alternative Names
Superoxide dismutase [Mn] mitochondrial, IPOB, MNSOD, MVCD6, Superoxide dismutase [Mn], mitochondrial IPO B, Manganese SOD, Manganese superoxide dismutase, Mn SOD, SOD 2, SOD2, Superoxide dismutase [Mn] mitochondrial, Superoxide dismutase 2 mitochondrial, Superoxide Dismutase-2

PRODUCT SPECIFICATION

Molecular Weight
24.4 kDa (219aa) confirmed by MALDI-TOF

Concentration
0.5mg/ml (determined by Bradford assay)

Formulation
Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 20% glycerol

Purity
> 95% by SDS-PAGE

Biological Activity
Specific activity is > 1,000unit/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
His-Tag

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.

BACKGROUND

Description
SOD2 is a member of the iron/manganese superoxide dismutase family. It is a mitochondrial matrix protein that

Recombinant human SOD2/Mn-SOD protein

Catalog Number: ATGP0512

forms a homotetramer and binds one manganese ion per subunit. This protein binds to the superoxide byproducts of oxidative phosphorylation and converts them to hydrogen peroxide and diatomic oxygen. Mutations in this protein have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. Recombinant human SOD2 protein was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

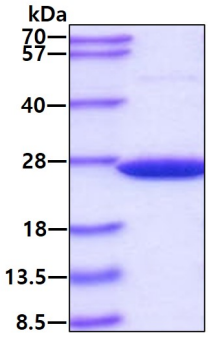
<MGSSHHHHHH SSGLVPRGSH M>KHSLPDLPY DYGALEPHIN AQIMQLHHSK HHAAYVNNLN VTEEKYQEAL AKGDVTAQIA LQPALKFNGG GHINHSIFWT NLSPNGGGEP KGELLEAIKR DFGSFDKFKE KLTAASVGVQ GSGWGWLGFN KERGHLQIAA CPNQDPLQGT TGLIPLLGID VWEHAYYLQY KNVRPDYLKA IWNVINWENV TERYMACKK

General References

MacMillan-Crow L.A., et al. (1999) Arch. Biochem. Biophys. 366:82-88
Prunotto M, et al. (2010) J Am Soc Nephrol. 21(3):507-19.

DATA

SDS-PAGE



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