

Active Recombinant Human superoxide dismutase 2 Protein, His tagged

Cat. No. SOD2-30343TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active recombinant human SOD2 protein was expressed in E. coli and purified by using conventional chromatography techniques.
Species	Human
Source	E.coli
ProteinLength	25-222 aa
Description	This gene is a member of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that 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 gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. Alternative splicing of this gene results in multiple transcript variants. A related pseudogene has been identified on chromosome 1.
Form	Liquid
Molecular Mass	24.4 kDa (219aa) confirmed by MALDI-TOF
AA Sequence	< MGSSHHHHHHSSGLVPRGSHM> KHSLPDLPYDYGALEPHINAQIMQLHHSKHHA AYVNNLNVTEEKYQEALAKGDVTAQIALQPALKFNGGGGHINHSIFWTNLSPNGGGEP

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KGELLEAIKRDFGSFDKFKEKLTAASVGVQSGSGWGLGFNKERGHLQIAACPNDP
LQGTGLIPLLIDVWEHAYYLQYKNVRPDYLKAIWNVINWENVTERYMACKK

Bio-Activity

Specific activity is > 1,000 unit/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 25 centigrade.

Purity

> 95 % by SDS-PAGE

Applications

SDS-PAGE, Enzyme Activity

Storage

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

Storage Buffer

20mM Tris-HCl buffer (pH 8.0) containing 20 % glycerol

Concentration

0.5 mg/mL (determined by Bradford assay)

Reference

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

GENE INFORMATION

Gene Name

SOD2 superoxide dismutase 2 [Homo sapiens (human)]

Official Symbol

SOD2

Synonyms

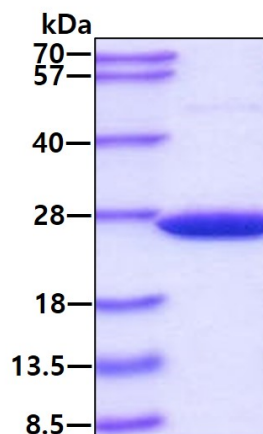
SOD2; superoxide dismutase 2, mitochondrial; superoxide dismutase [Mn], mitochondrial; indophenoloxidase B; Mn superoxide dismutase; mangano-superoxide dismutase; manganese-containing superoxide dismutase; IPOB; MNSOD; MVCD6

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Gene ID	6648
mRNA Refseq	NM_000636
Protein Refseq	NP_001019636
MIM	147460
UniProt ID	P04179

SDS-PAGE


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