Recombinant Human SOD2 protein, His-tagged

Cat. No. SOD2-2513H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SOD2 protein(Lys25~Lys222), fused with N-terminal His tag, was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Lys25~Lys222
Tag	N-His
Form	PBS, pH7.4, containing 0.01% SKL, 5%Trehalose.
Bio-activity	Extracellular superoxide dismutase [Cu-Zn] is an enzyme that in humans is encoded by the SOD2 gene. This gene encodes a member of the superoxide dismutase (SOD) protein family. SODs are antioxidant enzymes that catalyze the dismutation of two superoxide radicals into hydrogen peroxide and oxygen. Acroding to the report, in a weakly alkaline buffer solution (pH=8.2) with N-tris(hydroxymethyl)amino methane-HCL, pyrogallol can occur autoxidation in the air, then SOD can inhibit this reaction. Thus, we use this way to measued the activity of recombinant human SOD2. The reaction was performed in adding 8 μl 5 mmol/L pyrogallol to 200 μl 50mmol/L Tris-HCl, rapidly mixing at 25°C, then read at 325 nm (using 50mmol/L Tris-HCl as blank control) in kinetic mode for 3 minutes using a microplate reader controlling the pyrogallol autoxidation rate at 0.70 OD/min. Different concentrations of recombinant human SOD2 were added into 200

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	μl 50 mmol/L Tris-HCl, incubated for 20 min at 25°C, then adding 8 μl 5 mmol/L pyrogallol to each well, rapidly mixing and read at 325 nm in kinetic mode for 3 minutes. Under these conditions, the enzyme amount of 50% inhibition of pyrogallol autooxidation per minute is defined as a unit. The specific activity of recombinant human SOD2 is 142.2 U/mg.
Molecular Mass	25.9kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	>90%
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Reconstitution	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

GENE INFORMATION

Gene Name	SOD2 superoxide dismutase 2, mitochondrial [Homo sapiens]
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;
Gene ID	6648
mRNA Refseq	NM_000636

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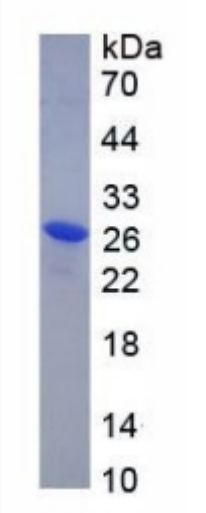
Protein Refseq	NP_000627
MIM	147460
UniProt ID	P04179
SDS-PAGE	

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