Active Recombinant Human SOD3 protein, His-SUMO-tagged

Cat. No. SOD3-1019H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human SOD3 protein(P08294)(19~240 aa), fused with N-terminal His tag and SUMO tag, was expressed in E.coli.
Species	Human
Source	E.coli
ProteinLength	19-240 aa
Form	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Bio-activity	Extracellular superoxide dismutase [Cu-Zn] is an enzyme that in humans is encoded by the SOD3 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 SOD3. 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 SOD3 were added into 200 μl 50 mmol/L Tris-HCl, incubated for 20 min at

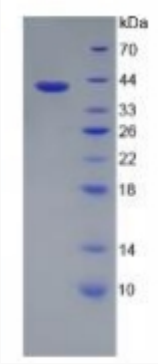
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	25°C, then adding 8 µl 5 mmol/L pyrogallol to each well, rapidly mixing and read at 325 nm in kinetic mode for 3 minutes. Under these conditions, the enzyme amount of 50% inhibition of pyrogallol autooxidation per minute is defined as a unit. The specific activity of recombinant human SOD3 is 63.9 U/mg.
Molecular Mass	37.9kDa
Endotoxin	<1.0EU per 1µg (determined by the LAL method).
Purity	> 90% as determined by SDS-PAGE.
Storage	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. 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	SOD3 superoxide dismutase 3, extracellular [Homo sapiens]
Official Symbol	SOD3
Synonyms	SOD3; superoxide dismutase 3, extracellular; extracellular superoxide dismutase [Cu-Zn]; EC SOD; EC-SOD; MGC20077;
Gene ID	6649
mRNA Refseq	NM_003102
Protein Refseq	NP_003093

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MIM	185490
UniProt ID	P08294
SDS-PAGE	

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