

Active Recombinant Human SOD3 protein, His-tagged

Cat. No. SOD3-108H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Active Recombinant Human SOD3 protein(P08294)(19~240 aa), fused with N-terminal His 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. According 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 measure the activity of recombinant human SOD3. The reaction was performed in adding 30μL 50mmol/L pyrogallol to 900μL 50mmol/L Tris-HCl in 1.5mL cuvette (1.0cm light path), rapidly mixing at 25°C, then read at 325nm (zero the spectrophotometer using 50mmol/L Tris-HCl), record the OD value every 30 second for 6 times. Control the pyrogallol autoxidation rate at 0.70 OD/min. After, adding various concentrations of recombinant of SOD3 to 900μL 50mmol/L Tris-HCl,

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incubated for 20min at 25°C, then adding 30μL 50mmol/L pyrogallol to each tube, rapidly mixing and read at 325nm, record the OD value every 30 second for 6 times. Under these conditions, the enzyme amount of 50% per minute inhibition of pyrogallol autooxidation is defined as a unit.

Molecular Mass	27.9kDa
Endotoxin	<1.0EU per 1μg (determined by the LAL method).
Purity	> 95% 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
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UniProt ID	P08294
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