

# Active Recombinant Human SOD3 protein, His-TrxA-tagged

Cat. No. SOD3-1020H Lot. No. (See product label)

## SPECIFICATION

<b>Product Overview</b>	Active Recombinant Human SOD3 protein(P08294)(19~240 aa), fused with His tag and TrxA tag, was expressed in E.coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	19-240 aa
<b>Form</b>	Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
<b>Bio-activity</b>	<p>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 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</p>

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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 94.8 U/mg.

<b>Molecular Mass</b>	44.6kDa
<b>Endotoxin</b>	<1.0EU per 1µg (determined by the LAL method).
<b>Purity</b>	> 90% as determined by SDS-PAGE.
<b>Storage</b>	Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months.
<b>Reconstitution</b>	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

## GENE INFORMATION

<b>Gene Name</b>	SOD3 superoxide dismutase 3, extracellular [ Homo sapiens ]
<b>Official Symbol</b>	SOD3
<b>Synonyms</b>	SOD3; superoxide dismutase 3, extracellular; extracellular superoxide dismutase [Cu-Zn]; EC SOD; EC-SOD; MGC20077;
<b>Gene ID</b>	6649
<b>mRNA Refseq</b>	NM_003102
<b>Protein Refseq</b>	NP_003093

 Tel: 1-631-559-9269 1-516-512-3133

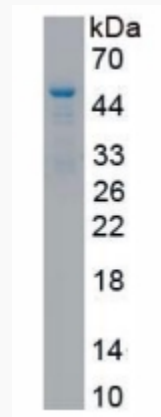
 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

**MIM** 185490

**UniProt ID** P08294

**SDS-PAGE**



 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA