

Human SOD3 protein, His tag

Cat. No. GTX00425-pro

Applications	Functional Assay
Species	Human

Package

10 µg

Applications

Application Note

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 autooxidation 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 30 µl pyrogallol (50mmol/l) to 900 µl Tris-HCl (50mmol/l) 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 autooxidation rate at 0.70 OD/min. After, adding various concentrations of recombinant of SOD3 to 900 µl Tris-HCl (50mmol/l), incubated for 20min at 25°C, then adding 30 µl pyrogallol (50mmol/l) 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. The specific activity of recombinant human SOD3 is 121.4 U/mg.

Observed MW (kDa)	33/30 kDa.
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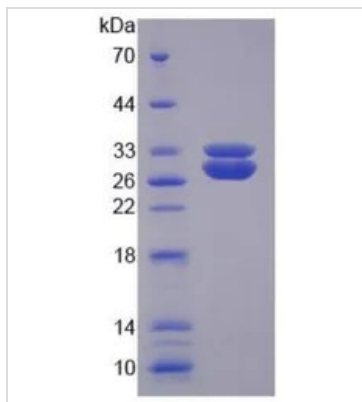
Properties

Form	Lyophilized powder
Buffer	Reconstitute with 20mM Tris (pH8.0) and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris (pH8.0), 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.
Preservative	ProClin 300
Storage	For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.
Region/Sequence	N-terminal His-Tag; Trp19~Ala240 (NP_003093.2)
Expression System	E. coli
Purity	> 95%
Endotoxin	< 1 EU/µg
Conjugation	Unconjugated
Note	For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

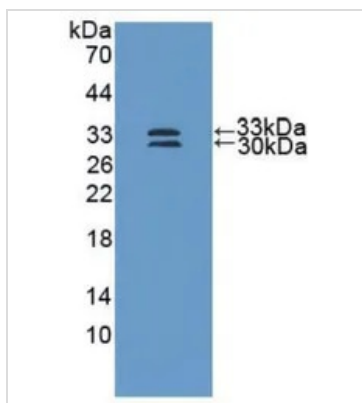


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DATA IMAGES

GTX00425-pro Image

SDS-PAGE analysis of GTX00425-pro Human SOD3 protein.


GTX00425-pro Image

WB analysis of GTX00425-pro Human SOD3 protein.



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