

Superoxide Dismutase 3, Extracellular Active Protein | SOD3 active protein

Active Superoxide Dismutase 3, Extracellular (SOD3)

CATALOG # AAA150073	HOST E. coli	REACTIVITY Mus musculus (Mouse)	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Superoxide Dismutase 3; Extracellular; Active Superoxide Dismutase 3; Extracellular (SOD3); SOD-3; EC-SOD; Extracellular Superoxide Dismutase Cu-Zn; SOD3 active protein

PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Mus musculus (Mouse)
Purity/Purification	>95%
Form/Format	PBS, pH7.4, containing 0.05% SKL, 1mM DTT, 5% Trehalose and Proclin 300.
Applicable Applications for SOD3 active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Ser25~Thr251
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	6.8
Usage	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

IMAGES


WB (Western Blot)

Figure 3. Western BlotSample: Recombinant SOD3, Mouse;Antibody: Rabbit Anti-Mouse SOD3 Ab

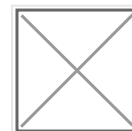

SDS_PAGE

Figure 2. SDS-PAGESample: Active recombinant SOD3, Mouse



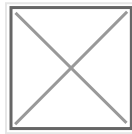
Application Data

Figure 1 . Gene Sequencing (extract



Bioactivity

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 mouse SOD3. The reaction was performed in adding 30L 50mmol/L pyrogallol to 900L 50mmol/L Tris-HCl in 1.5mL cuvette (1.0cm light path), rapidly mixing at 25, 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 900L 50mmol/L Tris-HCl, incubated for 20min at 25, then adding 30L 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 autoxidation is defined as a unit.



Sequence

ADDITIONAL INFORMATION

Product Categories/Family for SOD3
active protein

[Enzyme & Kinase](#)

NCBI AND UNIPROT INFORMATION

NCBI GI #	6755600
NCBI GeneID	20657
NCBI Accession #	NP_035565.1
NCBI GenBank Nucleotide #	NP_035565.1
UniProt Accession #	O09164
Molecular Weight	Predicted Molecular Mass: 26.2kDa Accurate Molecular Mass: 26kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	extracellular superoxide dismutase
NCBI Official Synonym Full Names	superoxide dismutase 3, extracellular
NCBI Official Symbol	Sod3
NCBI Official Synonym Symbols	EC-SOD; A1314465
NCBI Protein Information	extracellular superoxide dismutase [Cu-Zn]
UniProt Protein Name	Extracellular superoxide dismutase [Cu-Zn]
UniProt Gene Name	Sod3
UniProt Synonym Gene Names	EC-SOD
UniProt Entry Name	SODE_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

