

Superoxide Dismutase 3, Extracellular Active Protein | SOD3 active protein

Active Superoxide Dismutase 3, Extracellular (SOD3)

CATALOG # AAA21162	HOST E. coli	REACTIVITY Homo sapiens (Human)	APPLICATIONS Cell Culture, Activity Assay
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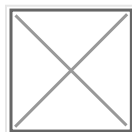
PRODUCT SYNONYMS

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

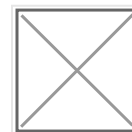
PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Homo sapiens (Human)
Purity/Purification	>90%
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Concentration	Original Concentration: 800ug/mL (varies by lot)
Applicable Applications for SOD3 active protein	Cell Culture, Activity Assay
Application Notes	(May be suitable for use in other assays to be determined by the end user.)
Source	Prokaryotic expression.
Residues	Trp19~Ala240
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	6.3
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


SDS-PAGE

Sample: Active recombinant SOD3, Human

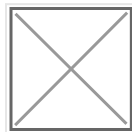

WB (Western Blot)

Western Blot Sample: Recombinant SOD3, Human; Antibody: Rabbit Anti-Human SOD3 Ab

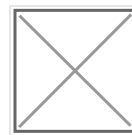


SDS-PAGE

Sample: Active recombinant SOD3, Human

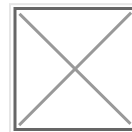


Gene Sequencing (Extract)



SDS-PAGE

Sample: Active recombinant SOD3, Human



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 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 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 autooxidation 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 autooxidation is defined as a unit.

ADDITIONAL INFORMATION

Product Categories/Family for SOD3
active protein

Enzyme & Kinase

NCBI AND UNIPROT INFORMATION

NCBI GI #	108885292
NCBI GeneID	6649
UniProt Accession #	P08294
Molecular Weight	Predicted Molecular Mass: 27.9kDa Accurate Molecular Mass: 33/30kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	Extracellular superoxide dismutase
NCBI Official Synonym Full Names	superoxide dismutase 3
NCBI Official Symbol	SOD3
NCBI Official Synonym Symbols	EC-SOD
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_HUMAN

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.