

SOD1 active protein

SOD1, 1-154aa, Human, E Coli (Bioactivity Validated)

CATALOG # AAA48526	HOST E Coli	APPLICATIONS SDS-Page
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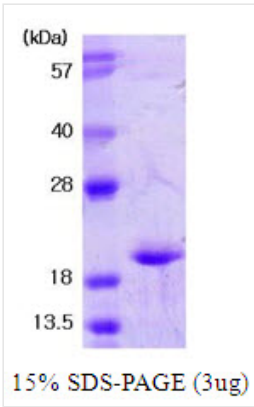
PRODUCT SYNONYMS

SOD1; 1-154aa; Human; E Coli (Bioactivity Validated); Superoxide dismutase 1 soluble; ALS; SOD; ALS1; IPOA; Cu-Zn superoxide dismutase; Superoxide dismutase 1; soluble ALS 1; Amyotrophic lateral sclerosis 1 Amyotrophic lateral sclerosis 1 adult; Cu/Zn SOD; Cu/Zn superoxide dismutase; Homodimer; Indophenoloxidase A; Mn superoxide dismutase; SOD 1; SOD soluble; SOD2; SODC; Superoxide dismutase Cu Zn; Superoxide dismutase cystolic; ; SOD1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	> 95% by SDS-PAGE
Form/Format	Liquid in 20 mM Tris pH 7.5, 10% glycerol.
Concentration	1 mg/ml (determined by Bradford assay) (varies by lot)
Sequence	MATKAVCVLK GDGPVQGIIN FEQKESNGPV KVGWSIKGLT EGLHGFHVHE FGDNTAGCTS AGPHFNPLSR KHGGPKDEER HVGDLGNVTA DKDGVADVSI EDSVISLSGD HCIIGRTLTVV HEKADDLGKG GNEESTKTGN AGSRLACGVI GIAQ
Sequence Length	154
Applicable Applications for SOD1 active protein	SDS-PAGE
Antigen Species	Human
Endotoxin Level	< 1.0 EU per 1 microgram of protein (determined by LAL method)
Biological Activity	Specific activity is > 1,000 units/mg, in which one unit will inhibit the rate of reduction of cytochrome c by 50% in a coupled system, using xanthine and Xanthine oxidase at pH 7.5 at 25C.
Assay	1. Prepare a 180ul assay buffer mix into a suitable container and pre-chill on ice before use: The concentrations are 54mM potassium phosphate, 5.5mM ethylenediaminetetraacetic acid, 66mM cytochromC 0.9mM xanthine, 0.01 units xanthine oxidase. 2. Equilibrate to 25C and monitor at A550nm until the value is constant using a spectrophotometer. 3. Add 20ul of recombinant SOD1 protein to 50ug/ml in assay buffer. 4. Mix by inversion and record the increase at A550nm for 5 minutes.
Preparation and Storage	Can be stored at 4 degree C short term (1-2 weeks). For long term storage, aliquot and store at -20 degree C or -70 degree C. Avoid repeated freezing and thawing cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for SOD1 active protein	Superoxide dismutase 1 (SOD1) binds copper and zinc ions and is one of three isozymes responsible for destroying free superoxide radicals in the body. The encoded protein neutralizes supercharged oxygen molecules, which can damage cells if their levels are not controlled. Mutations in SOD1 cause a form of familial amyotrophic lateral sclerosis (ALS). Recombinant SOD1 was expressed in E Coli and purified by conventional chromatography techniques.
Product Categories/Family for SOD1 active protein	Redox Proteins
References	Conwit R., et al. (2006) Journal of the Neurological Sciences 251 (1-2).; Banci L., et al. (2008) PLoS ONE. 3 (2):e1677. ; This product was used in the following article:: Kwon MJ et.al Superoxide dismutase 3 suppresses hyaluronic http://www.ncbi.nlm.nih.gov/pubmed/21957979 ;

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507149
NCBI GeneID	6647
NCBI Accession #	NP_000445
NCBI GenBank Nucleotide #	NM_000454.4
UniProt Accession #	P00441; Q16669; Q16711; Q16838; Q16839; Q16840; Q6NR85; A6NHJ0; D3DSE4
Molecular Weight	15.9 kDa (154 aa), confirmed by MALDI-TOF.
NCBI Official Full Name	superoxide dismutase
NCBI Official Synonym Full Names	superoxide dismutase 1
NCBI Official Symbol	SOD1
NCBI Official Synonym Symbols	ALS; SOD; ALS1; IPOA; hSod1; HEL-S-44; homodimer
NCBI Protein Information	superoxide dismutase [Cu-Zn]
UniProt Protein Name	Superoxide dismutase [Cu-Zn]
UniProt Gene Name	SOD1
UniProt Synonym Gene Names	hSod1

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.

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Online datasheet: <https://www.aaabiotech.com/e-coli-active-protein/sod1/48526>