
Product Data Sheet

Product Name: SOD Human
 Cat. No.: GP24655
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Superoxide dismutase [Cu-Zn]; EC 1.15.1.1; SOD1; SOD; ALS; ALS1; IPOA.		
Amino Acid Sequence	ATKAVCVLKG DGPVQGIINF EQKESNGPVK VWGSIKGLTE GLHGFHVHEF GDNTAGCTSA GPHFNPLSRK HGGPKDEERH VGD LGNVTAD KDG VADVSIE DSVISLSGDH CIIGRTL VVH EKADDLGKGG NEESTKTGNA GSRLACGVIG IAQ.		
Solubility	It is recommended to reconstitute the lyophilized SOD in sterile 18M Ω -cm H ₂ O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a 0.2 μ m filtered concentrated (1mg/ml) solution in PBS, pH 7.4.		

Introduction

Human Cu/Zn Superoxide Dismutase (SOD1) catalyzes the reaction between superoxide anions and hydrogen to yield molecular oxygen and hydrogen peroxide. The enzyme protects the cell against dangerous levels of superoxide. SOD1 binds copper and zinc ions and is 1 of 3 isozymes accountable 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.

Biological Activity

The potency per mg was tested by Pyrogalllic Acid method and was found to be more than 10,000 Units/mg.

Stability

Caution: Product has not been fully validated for medical applications. For research use only.

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Lyophilized SOD although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution SOD should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Background

Recombinant Human Cu/Zn Superoxide Dismutase produced in E.Coli is a non-glycosylated homodimeric polypeptide chain containing 2 x 153 amino acids and having a total molecular mass of 31.6kDa.

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