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**Product Data Sheet**


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Product Name: SOD1 Human  
 Cat. No.: GP24657  
 Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Superoxide dismutase [Cu-Zn]; EC 1.15.1.1; SOD1; SOD; ALS; ALS1; IPOA.		
Amino Acid Sequence	MATKAVCVLK GDGPVQGIIN FEQKESNGPV KVGWSIKGLT EGLHGFHVHE FGDNTAGCTS AGPHFNPLSR KHGGPKDEER HVGDLGNVTA DKDGVADVSI EDSVISLSGD HCIIGRTLTVV HEKADDLGKG GNEESTKTGN AGSRLACGVIGIAQ.		
Formulation	SOD1 filtered solution (1mg/ml) contains 20mM Tris-HCl pH-7.5 and 10% glycerol.		

**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**

Specific activity is > 500 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 7.8 at 25°C.

**Stability**

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1%

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

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HSA or BSA). Avoid multiple freeze-thaw cycles.

### Background

Recombinant Human Cu/Zn Superoxide Dismutase produced in E.Coli is a single monomeric non-glycosylated polypeptide chain containing 154 amino acids and having a total molecular mass of 15.9 kDa. The SOD1 is purified by proprietary chromatographic techniques.

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