9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

SOD1 Human

Superoxide Dismutase 1 Human Recombinant
RCP2189

Product Overview

Name	SOD1 Human
Description	
Superoxide Dismutase 1 Human Recombinant	
Accession (Primary)	P00441
Synonyms	
Superoxide dismutase [Cu-Zn], EC 1.15.1.1, SOD1, SOD, ALS, ALS1, IPOA.	
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.	
Source	
Escherichia Coli.	
Physical Appearance	
Sterile Filtered colorless solution.	
Formulation	
SOD1 filtered solution (1mg/ml) contains 20mM Tris-HCl pH-7.5 and 10% glycerol.	
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% HSA or BSA). Avoid multiple freeze-thaw cycles.	
Purity	
Greater than 95.0% as determined by SDS-PAGE.	
Amino acid sequence	
MATKAVCVLK GDGPVQGIIN FEQKESNGPV KVWGSIKGLT EGLHGFHVHE FGDNTAGCTS AGPHFNPLSR KHGGPKDEER HVGDLGNVTA DKDGVADVSI EDSVISLSGD HCIIGRTLVV HEKADDLGKG GNEESTKTGN AGSRLACGVIGIAQ.	
Biological Activity	

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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.

Precautions

SOD1 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P00441)