

SOD1

Recombinant Human Cu/Zn Superoxide Dismutase

Catalog No.	CSI20138A CSI20138B CSI20138C	Quantity:	20 µg 100 µg 1.0 mg
Alternate Names:	ALS, ALS1, HEL-S-44, IPOA, SOD, hSod1		
Description:	<p>Superoxide dismutase catalyzes the reaction between superoxide anions and hydrogen to yield molecular oxygen and hydrogen peroxide. Cu/Zn superoxide dismutase also named as SOD1, is an enzyme encoded by the SOD1 gene in humans, located on chromosome 21. The SOD1 binds Cu and Zn ions and is one of three SODs responsible for destroying free superoxide radicals in the body. It has been shown to interact with CCS and Bcl-2. The malfunction of SOD1 may increase the risk of illnesses like age-related muscle mass loss (sarcopenia), early development of cataracts, macular degeneration, thymic involution, hepatocellular carcinoma, shortened lifespan, keratoconus and amyotrophic lateral sclerosis.</p> <p>Recombinant Human Superoxide Dimutase is a homodimer, non-glycosylated polypeptide chain containing 2 x 153 amino acids.</p>		
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.		
Gene ID:	6647		
Source:	<i>E. coli</i>		
Molecular Weight:	31 kDa		
Formulation:	Lyophilized from a 0.2 µm sterile filtered solution of PBS, pH 7.4.		
Purity:	>95% by SDS-PAGE and HPLC analyses.		
Endotoxin Level:	<1 EU/µg as determined by LAL method.		
Biological Activity:	Fully biologically active when compared to standard. The potency per mg was tested by Pyrogalllic Acid method and was found to be more than 1.0×10^4 IU/mg.		
Amino Acid Sequence:	ATKAVCVLKG DGPVQGIINF EQKESNGPVK VWGSIKGLTE GLHGFHVHEF GDNTAGCTSA GPHFNPLSRK HGGPKDEERH VGD LGNV TAD KDG VADV SIE DSVISLSGDH CIIGRTL VH EKADD LGKGG NEESTKTGNA GSRLACGVIG IAQ		
Reconstitution:	Centrifuge vial prior to opening. Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.		
Storage & Stability:	The lyophilized protein is stable at 2-8°C. Upon receipt, store desiccated at -20°C. After reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. For long term storage of reconstituted protein, it is recommended that a carrier protein such as 0.1% BSA or HSA be added. This depends on the particular application. Avoid repeated freeze/thaw cycles.		

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