

# Recombinant Human Superoxide Dismutase

## Human, Recombinant (SOD1)

Expressed in *E. coli*

Cat. No. CRP0860

Lot. No. (See product label)

### PRODUCT INFORMATION

**Product Overview:** Recombinant Human Superoxide Dismutase produced in *E. coli* is a homodimer, non-glycosylated polypeptide chain containing 2 x 154 amino acids and having a molecular mass of approximately 31 kDa.

**Description:** Human Cu/Zn Superoxide Dismutase (SOD) 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.

**Purity:** >85% by SDS-PAGE and HPLC analyses.

**Formulation:** Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution.

**Physical Appearance:** Sterile Filtered lyophilized (freeze-dried) powder.

**Specific Activity:** Fully biologically active when compared to standard. The potency per mg was tested by Pyrogallic Acid method and was found to be more than 3,000Units/mg.

**Endotoxin:** Less than 1EU/µg of rHuSOD as determined by LAL method.

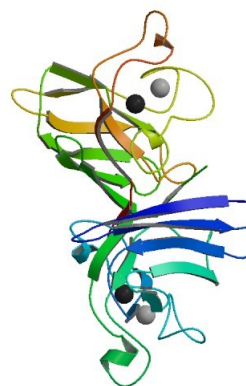
**Reconstitution:** We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

**Storage:** This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20° for long term storage, preferably desiccated. Upon 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 -70°C. Avoid repeated freeze/thaw cycles.

### REFERENCES

1.de Bellerocche J, Orrell R, King A (1996). Familial amyotrophic lateral sclerosis/motor neurone disease (FALS): a review of current developments. *J. Med. Genet.* 32 (11): 841-7.

### FOR RESEARCH USE ONLY



Superoxide dismutase 1, soluble (amyotrophic lateral sclerosis 1 (adult))[1azy](#), [1ba9](#), [1dsw](#), [1fun](#), [1hl4](#), [1hl5](#), [1kmg](#), [1l3n](#), [1mfm](#), [1n18](#), [1n19](#), [1oez](#), [1ozt](#), [1ozu](#), [1p1v](#), [1ptz](#), [1pu0](#), [1rk7](#), [1sos](#), [1spd](#), [1uxl](#), [1uxm](#), [2af2](#), [2c9s](#), [2c9u](#), [2c9v](#), [2qbt](#), [2qbu](#), [2qbv](#), [2nnx](#)

### GENE INFORMATION

**Gene Name:** [SOD1 superoxide dismutase 1, soluble \[ Homo sapiens \]](#)

**Synonyms:** SOD1; superoxide dismutase 1, soluble; ALS; SOD; ALS1; IPOA; homodimer; SOD, soluble; indophenoloxidase A; Cu/Zn superoxide dismutase; superoxide dismutase, cystolic; EC 1.15.1.1; Superoxide dismutase [Cu-Zn]

**GeneID:** [6647](#)

**mRNA Refseq:** [NM\\_000454](#)

**Protein Refseq:** [NP\\_000445](#)

**MIM:** [147450](#)

**UniProt ID:** [P00441](#)

**Chromosome Location:** 21q22.1; 21q22.11

**Pathway:** Amyotrophic lateral sclerosis (ALS); Huntington's disease; Prion diseases; Hemostasis

**Function:** antioxidant activity; chaperone binding; copper ion binding; metal ion binding; oxidoreductase activity; protein homodimerization activity; protein phosphatase 2B binding; superoxide dismutase activity; zinc ion binding

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