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Product Information

SOD1, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5135**
Storage Temperature –70 °C

Synonyms: Cu/Zn-SOD, ALS, SOD, ALS1, IPOA, Homodimer

Product Description

SOD1 (superoxide dismutase 1) is the major soluble cytoplasmic enzyme responsible for destroying harmful free superoxide radicals in the body, thereby, providing defense against oxygen free-radical toxicity. Soluble cytoplasmic SOD1 is a copper and zinc-containing enzyme, and the SOD1 gene maps to chromosome 21q22.[1] Mutations in the SOD1 gene have been implicated to be the cause of familial amyotrophic lateral sclerosis, increased age-related muscle mass loss, early development of cataracts, macular degeneration, thymic involution, hepatocellular carcinoma, and shortened lifespan.[2]

Recombinant, full-length, human SOD1 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_000454. Recombinant protein stored in 50 mM Tris-HCl, pH 7.5, 150 mM NaCl, 10 mM glutathione, 0.1 mM EDTA, 0.25 mM DTT, 0.1 mM PMSF, and 25% glycerol.

Molecular mass: ~45 kDa

Purity: 70–95% (SDS-PAGE, see Figure 1)

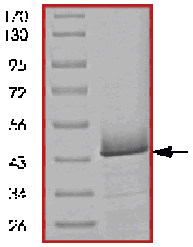
Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –70 °C is recommended. After opening, aliquot into smaller quantities and store at –70 °C. Avoid repeated handling and multiple freeze/thaw cycles.

Figure 1.
SDS-PAGE Gel of Typical Lot
70–95% (densitometry)



References

1. Sherman, L. et al., Nucleotide sequence and expression of human chromosome 21-encoded superoxide dismutase mRNA. Proc. Nat. Acad. Sci., **80**, 5465-5469 (1983).
2. Al-Chalabi, A. Recent advances in amyotrophic lateral sclerosis. Current Opinion in Neurology, **13**(4), 397–405 (2000).

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