

Product Information

SOD2, GST-tagged, human recombinant, expressed in *E. coli* cells

Catalog Number **SRP5136**
Storage Temperature -70°C

Synonyms: Mn-SOD, MNSOD, IPO-B

Product Description

SOD2 (superoxide dismutase 2) is a member of the iron/manganese superoxide dismutase family. SOD2 binds to the superoxide byproducts of the mitochondrial electron transport chain and converts them to hydrogen peroxide and diatomic oxygen. Failure of SOD2 to remove the superoxide byproducts leads to an increase in mitochondrial reactive oxygen species resulting in biochemical aberrations with features reminiscent of mitochondrial myopathy, Friedreich ataxia, and HMGCL deficiency.¹ Mutations in SOD2 have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer.²

Recombinant, full-length, human SOD2 was expressed in *E. coli* cells using an N-terminal GST tag. The gene accession number is NM_000636. 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: ~51 kDa

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

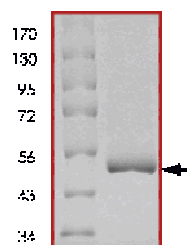
Precautions and Disclaimer

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. Melov, S. et al., A novel neurological phenotype in mice lacking mitochondrial manganese superoxide dismutase. *Nature Genet.*, **18**, 159-163 (1998).
2. Hiroi, S. et al., Polymorphisms in the SOD2 and HLA-DRB1 genes are associated with nonfamilial idiopathic dilated cardiomyopathy in Japanese. *Biochem. Biophys. Res. Commun.*, **261**, 332-339 (1999).

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