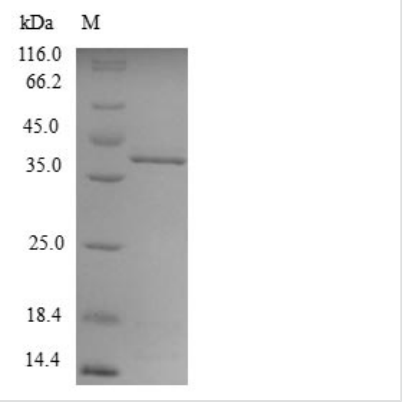
Recombinant Danio rerio Superoxide dismutase [Cu-Zn] (sod1)

Product Code	CSB-EP022397DIL
Relevance	Destroys radicals which are normally produced within the cells and which are toxic to biological systems.
Abbreviation	Recombinant Zebrafish SOD1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O73872
Product Type	Recombinant Protein
Immunogen Species	Danio rerio (Zebrafish) (Brachydanio rerio)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MVNKAVCVLKGTGEVTGTVYFNQEGEKKPVKVTGEITGLTPGKHGFHVHAFG DNTNGCISAGPHFNPHDKTHGGPTDSVRHVGDLGNVTADASGVAKIEIEDAML TLSGQHSIIGRTMVIHEKEDDLGKGGNEESLKTGNAGGRLACGVIGITQ
Research Area	Signal Transduction
Source	E.coli
Target Names	sod1
Protein Names	Recommended name: Superoxide dismutase [Cu-Zn] EC= 1.15.1.1
Expression Region	1-154aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-SUMO-tagged and C-terminal Myc-tagged
Mol. Weight	37.1kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The region for expressing recombinant Zebrafish sod1 contains amino acids 1-154. This sod1 protein is theoretically predicted to have a molecular weight of 37.1 kDa. This sod1 recombinant protein is manufactured in e.coli. The sod1 coding gene included the N-terminal 10xHis-SUMO tag and C-terminal Myc tag, which simplifies the detection and purification processes of the recombinant sod1 protein in following stages of expression and purification.

Superoxide dismutase [Cu-Zn] (Sod1) in Danio rerio, commonly known as zebrafish, is an essential antioxidant enzyme that plays a crucial role in the defense against oxidative stress. This enzyme is characterized by its ability to catalyze the dismutation of superoxide radicals into oxygen and hydrogen peroxide, thereby protecting cells from the harmful effects of reactive oxygen species. Sod1 is primarily localized in the cytoplasm and is involved in maintaining cellular redox homeostasis. In zebrafish, as in other organisms, Sod1 is vital for various physiological processes, including embryonic development, immune response, and overall cellular survival. Studying Sod1 in zebrafish contributes to a better understanding of the mechanisms underlying oxidative stress responses and provides insights into the role of this enzyme in development and disease.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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