# SOD2
# Recombinant Human Superoxide Dismutase-2 His

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| **Catalog No.** | CS460A | **Quantity:** | 5 µg |
| | CS460B | | 25 µg |
| | CS460C | | 1 mg |

**Alternate Names:** Superoxide dismutase 2 mitochondrial, MNSOD, MVCD6, IPOB

**Description:** Superoxide dismutase-2 is part of the iron/manganese superoxide dismutase family. It encodes a mitochondrial protein that forms a homotetramer and binds one manganese ion per subunit. SOD2 binds to the superoxide byproducts of oxidative phosphorylation and converts them to hydrogen peroxide and diatomic oxygen. Mutations in SOD2 gene have been associated with idiopathic cardiomyopathy (IDC), premature aging, sporadic motor neuron disease, and cancer. SOD2 destroys radicals which are usually produced within the cells and which are toxic to biological systems.

Recombinant Human SOD2 is a single, non-glycosylated, polypeptide chain containing 219 amino acids (aa 25-222) fused to a 20 aa His-Tag at the N-terminus and purified by standard chromatography.

**Gene ID:** 6648

**Source:** *E. coli*

**Molecular Weight:** 24.4 kD

**Formulation:** Sterile filtered colorless solution containing 20 mM Tris-HCl, pH 8, + 20% glycerol.

**Purity:** >95% as determined by SDS-PAGE

**Specific Activity:** >1,200 units/mg, in which one unit will inhibit the rate of reduction of cytochrome c by 50% in a coupled system, using xanthine and xanthine oxidase at pH 7.8 at 25°C in a 1.5 ml reaction volume.

**Amino Acid Sequence:** **MGSSHHHHHH SSGLVPRGSH** MKHSLPDLPY DYGALEPHIN AQIMQLHHSK HHAAYVNNLN VTEEKYQEAL AKGDVTAQIA LQPALKFNGG GHINHSIFWT NLSPNGGGEP KGELLEAIKR DFGSFDKFKE KLTAASVGVQ GSGWGWLGFN KERGHLQIAA CPNQDPLQGT TGLIPLLGID VWEHAYYLQY KNVRPDYLKA IWNVINWENV TERYMACKK

**Storage & Stability:** Store at 2-4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Avoid repeated freeze-thaw cycles.**



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