

## 32-4920: Recombinant Human Superoxide Dismutase-2

**Alternative Name :** MNSOD,MVCD6,IPOB,Mn superoxide dismutase,EC=1.15.1.1.

### Description

Source : Escherichia Coli. SOD2 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 219 amino acids (25-222 a.a.) and having a molecular mass of 24.4kDa. SOD2 protein is fused to a 20 amino acid His-Tag at N-terminus and purified by standard chromatography. SOD2 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.

### Product Info

<b>Amount :</b>	25 µg
<b>Purification :</b>	Greater than 95% as determined by SDS-PAGE.
<b>Content :</b>	SOD2 Human solution containing 20mM Tris-HCl pH-8 & 20% glycerol.
<b>Storage condition :</b>	Store at 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 multiple freeze-thaw cycles.
<b>Amino Acid :</b>	MGSSHHHHHH SSGLVPRGSH MKHSLPDLPY DYGALEPHIN AQIMQLHHSK HHAAYVNNLN VTEEKYQEAL AKGDVTAQIA LQPALKFNGG GHINHSIFWT NLSPNGGGEP KGELLEAIKR DFGSFDKFE KLTAASVGVQ GSGWGWLGFN KERGHLQIAA CPNQDPLQGT TGLIPLLID VWEHAYYLQY KNVRPDYLKA IWNVINWENV TERYMACKK.

### Application Note

Specific activity is > 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.

