

Recombinant Human Cu/Zn Superoxide Dismutase (SOD1) Monomer

ORDERING INFORMATION

Catalog nos.13001P-5	5ug
13001P-25	25ug
13001P-1000	1000ug

Formulation: Sterile-filtered solution in 20mM Tris-HCl, pH 7.5 and 10% glycerol. Purified by proprietary chromatographic techniques.

BACKGROUND

Cu/Zn Superoxide Dismutase (SOD1) catalyzes the reaction between superoxide anions and hydrogen to yield molecular oxygen and hydrogen peroxide. It protects a cell from dangerous levels of superoxide. SOD1 binds copper and zinc ions and is one of three isozymes responsible for destroying free superoxide radicals. Mutations in SOD1 cause a form of familial amyotrophic lateral sclerosis (ALS).

DESCRIPTION

Recombinant Human Cu/Zn SOD1 produced in E. coli is a single monomeric non-glycosylated polypeptide chain containing 154 amino acids with a molecular weight of 15.9kDa.

SPECIFICATION SUMMARY

Source: *Escherichia coli*

Purity: Greater than 95% as determined by SDS- PAGE and RP-HPLC.

Accession number: P00441.2

Amino acid sequence:

MATKAVCVLK GDGPVQGIIN FEQKESNGPV KVGWSIKGLT EGLHGFHVHE FGDNTAGCTS
AGPHFNPLSR KHGGPKDEER HVGDLGNVTA DKDGVADVSI EDSVISLSGD HClIGRTLVV
HEKADDLGKG GNEESTKTGN AGSRLACGVIGIAQ

BIOLOGICAL ACTIVITY

Specific activity is >90 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 1.5ml reaction volume.

STORAGE AND STABILITY

Store at 4°C if entire vial will be used within 2-4 weeks. Store at -20°C for longer periods of time. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage. Avoid multiple freeze-thaw cycles.

For in vitro investigational use only. Not intended for use in therapeutic or diagnostic procedures.