

## Recombinant Human Cu/Zn Superoxide Dismutase (SOD1) Homodimer

### ORDERING INFORMATION

**Catalog nos.:** 13002P-20      20ug  
                  13002P-100     100ug  
                  13002P-1000    1000ug

**Formulation:** Lyophilized from a sterile-filtered solution (1mg/ml) in PBS, pH 7.4 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 homodimer non-glycosylated polypeptide chain containing 2 x 154 amino acids with a molecular weight of 31.6kDa.

### 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 HCIIGRTLTV  
HEKADDLGKG GNEESTKTGN AGSRLACGVIGIAQ

### SOLUBILITY

Reconstitute lyophilized product in sterile distilled H<sub>2</sub>O to no less than 100ug/ml which can be further diluted in other aqueous solutions as needed.

### BIOLOGICAL ACTIVITY

Potency per mg is 10,000 units/mg as determined by the Pyrogalllic Acid method.

### STORAGE AND STABILITY

Although lyophilized product is stable at room temperature for 3 weeks, it is best stored at or below -20°C. After reconstitution, product should be stored at or below -20°C. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage.

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