Creative Enzymes®

Cu/Zn Superoxide Dismutase, Recombinant

Cat. No. NATE-1143

Lot. No. (See product label)

Introduction

Description Superoxide dismutase (SOD) catalyzes the dismutation of superoxide radicals to hydrogen peroxide and molecular oxygen. SOD plays a critical role in the defense of cells against the toxic effects of oxygen radicals. SOD competes with nitric oxide (NO) for superoxide anion (which reacts with NO to form peroxynitrite), thereby SOD promotes the activity of NO. SOD has also been shown to suppress apoptosis in cultured rat ovarian follicles, neural cell lines, and transgenic mice by preventing the conversion of NO to peroxynitrate, an inducer of apoptosis.

Applications SOD is a unique enzyme which caneliminate superoxide radical, thus protecting the cell from superoxide toxicity. SOD is widely used for adjusting endocrine system and immunity enhancement, in clinical and research of inflammation, such as therapy rheumatoid arthritis, Multiple chronic arthritis, myocardial infarction, angiocardiopathy, cancer patients.

Synonyms Superoxide dismutases; EC 1.15.1.1; superoxidase dismutase; copper-zinc superoxide dismutase; Cu-Zn superoxide dismutase; ferrisuperoxide dismutase; superoxide dismutase I; superoxide dismutase II; SOD; Cu,Zn-SOD; Mn-SOD; Fe-SOD; SODF; SODS; SOD-1; SOD-2; SOD-3; SOD-4; hemocuprein; erythrocuprein; cytocuprein; cuprein ; hepatocuprein; 9054-89-1

Product Information

Appearance White powder, lyophilized

EC Number EC 1.15.1.1

CAS No. 9054-89-1

Molecular Weight About 20kDa (SDS-PAGE detection)

Purity >90% (SDS-PAGE test)

Activity 21,186U/mg protein

Buffer 50mM Tris buffer, pH8.0

Unit Definition pH 8.2, 54 mM Tris-HCl 140 uL, including 54 mM Dimethyl swollen acid sodium, 1.07 mM diethylenetriamine pentaacetic acid, 5 uLddH2O or (5uL pyrogallic acid in 10 mM HCl); total reaction volume is 150 uL, time keeping. The autoxidation rate is effective within 3 minutes, controlling the quantity of pyrogallic acid, keeping the autoxidation rate will produce aincrease per min by 0.018 at 420 nm min，and produce a increase per min by 0.010 after SOD adding.

Storage and Shipping Information

Storage 4°C, store at -20°C for long-term preservation.