

Active Bovine Superoxide Dismutase (SOD), High Purity >95%

Cat. No. CED026 Lot. No. (See product label)

SPECIFICATION

Product Overview	Active Bovine Superoxide Dismutase(SOD) was purified from Bovine Kidney.
Species	Bovine
Source	Kidney
Description	Superoxide dismutase (SOD) catalyzes the destruction (dismutation) of superoxide free radical ions. The superoxide (O_2^-) ion is believed to be responsible for lipid peroxidation and peroxidative hemolysis of erythrocytes. The action of superoxide dismutase, therefore, results in protection of the biological integrity of cells and tissues against the harmful effects of superoxide free radicals. Superoxide dismutase is widely distributed in both plants and animals. It occurs in high concentrations in brain, liver, heart, erythrocytes and kidney. Three superoxide dismutases have been characterized according to their metal content. The enzyme from bovine and human erythrocytes contains copper and zinc, the one from chicken and rat liver mitochondria contains manganese while the enzyme from E. coli contains iron. Superoxide dismutase from bovine erythrocytes has a molecular weight of 32,500. Orgotein is the generic name, adopted by the United States Adopted Names (USAN) for Cu-Zn superoxide dismutases. Clinical trials indicate that orgotein has strong anti-inflammatory properties with almost no toxic side effects.
Form	Freeze-dried
Bio-activity	3000 U/mg protein. The method of assay is based on the ability of superoxide

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dismutase to compete with ferricytochrome C for superoxide anions generated by the xanthine oxidase system. This results in inhibition of the rate of reduction of ferricytochrome C.

Purity 95% (biuret)

Unit Definition That amount of enzyme which, under specified conditions of the assay, will cause a 50% inhibition in the rate of reduction of ferricytochrome C.

Stability At -20 centigrade.

Reconstitution Soluble in distilled water or dilute buffer.

GENE INFORMATION

Gene Name SOD1 superoxide dismutase 1 [Homo sapiens (human)]

Official Symbol SOD1

Synonyms SOD1; superoxide dismutase 1; ALS; SOD; ALS1; IPOA; STAHP; hSod1; HEL-S-44; homodimer; superoxide dismutase [Cu-Zn]; Cu/Zn superoxide dismutase; SOD, soluble; epididymis secretory protein Li 44; indophenoloxidase A; superoxide dismutase 1, soluble; superoxide dismutase, cystolic; EC 1.15.1.1

Gene ID 6647

mRNA Refseq NM_000454

Protein Refseq NP_000445

MIM 147450

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UniProt ID

P00441

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