

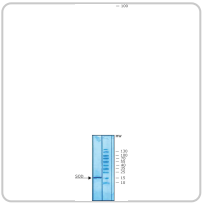
Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.

MERCK

GET YOURS HERE

Saisir le nom du produit, le numéro de lot, etc.



Toutes les photos (4)

Documents

- FDS
- COO/COA

Fiche des caractéristiques

Plus de documents »

S9697 ▶ Sigma-Aldrich.

Superoxide Dismutase bovine

★★★★★ (0)

recombinant, expressed in *E. coli*, lyophilized powder, ≥2500 units/mg protein, ≥90% (SDS-PAGE)

Synonyme(s):
Superoxide Dismutase 1 bovine, CU/ZN-SOD, SOD, SOD1, Superoxide: superoxide oxidoreductase

Numéro CAS:

9054-89-1

Numéro de classification
(Commission des enzymes):

1.15.1.1 (BRENDA, IUBMB)

Numéro EC:

232-943-0

Numéro MDL:

MFCD00132404

NACRES:

NA.54

Référence	Conditionnement	Disponibilité	Prix	Quantité
S9697-15KU	15000 UNITS	✔ Only 4 left in stock (more on the way) Détails...	78,10 €	– + i
S9697-30KU	30000 UNITS	✔ Only 3 left in stock (more on the way) Détails...	117,00 €	– + i
S9697-75KU	75000 UNITS	✔ Only 1 left in stock (more on the way) Détails...	254,00 €	– + i
S9697-300KU	300000 UNITS	✔ Only 2 left in stock (more on the way) Détails...	930,00 €	– + i

Brighten up your lab coat!

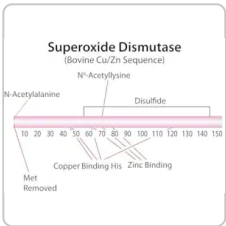
Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE

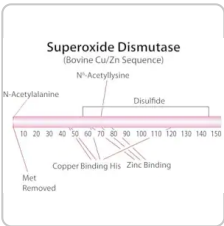


PRODUITS RECOMMANDÉS



Sigma-Aldrich
S7571
Superoxide Dismutase from bovine erythrocytes
lyophilized powder, ≥3,000 units/mg protein

Consulter le prix et la disponibilité



Sigma-Aldrich
S5395
Superoxide Dismutase from bovine erythrocytes
≥3,000 units/mg protein, BioReagent, lyophilized powder, suitable for cell culture

Consulter le prix et la disponibilité

PROPRIÉTÉS

Recombinant	expressed in <i>E. coli</i>
Niveau de qualité	200
Essai/Dosage	≥90% (SDS-PAGE)
Forme	lyophilized powder
specific activity	≥2500 units/mg protein

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.

[GET YOURS HERE](#)

pl	4.95
Remarque sur la séquence	MATKAVCVLKGDGPVQGTHFEAKGDTVVTGSITGLTEGDHGFHVHQFGDNTQGCTSAGPHFNPLSKKHGGP KDEERHVGDLGNVTADKNGVAIVDIVDPLISLSGEYSIIIGRTMVVHEKPDDLGRGGNEESTKTGNAGSRLACGVIG IAK
N° d'accession NCBI	NM_174615 NP_777040
Temp. de stockage	-20°C

DESCRIPTION

Description générale

SOD from bovine erythrocytes was the first SOD to be found in mammalian tissues. Before its enzymatic activity was discovered the protein was known as haemocuprein or erythrocuprein. SOD from bovine erythrocytes is a homodimeric non-covalently bound protein with two 16.3 kDa subunits of 151 amino acids. Each monomer has one intrachain disulfide and one free sulfhydryl, one Cu^{+2} atoms and one Zn^{+2} atoms. There are three forms of SOD differentiated by the metal ions in the active site. These are $\text{Cu}^{+2}/\text{Zn}^{+2}$, Mn^{+2} , and Fe^{+2} SOD. In vertebrate organisms Cu/Zn-SOD is found in the cytoplasm and the mitochondrial intermembrane space, while Mn-SOD is found in the mitochondrial matrix space. Fe-SOD is found in prokaryotes and some higher plants.

Application

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



The product has been used to develop an SOD assay. This assay used dismutase-mediated inhibition of NADH-dependent nitroblue tetrazolium reduction.

Conditionnement

15000 units in glass bottle

30000, 75000, 300000 units in poly bottle

Actions biochimiques/physiologiques

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.

Définition de l'unité

One unit will inhibit reduction of cytochrome c by 50% in a coupled system with xanthine oxidase at pH 7.8 at 25°C in a 3.0 ml reaction volume. Xanthine oxidase concentration should produce an initial ΔA_{550} of 0.025 ± 0.005 per min.

Notes préparatoires

Produced using animal component-free materials.

Reconstitution

Reconstitute in 10 mM potassium phosphate, pH 7.4.

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.

[GET YOURS HERE](#)**Autres remarques**

Inhibitors: cyanide, OH⁻ (competitive), hydrogen peroxide

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage

10 - Combustible liquids

WGK

WGK 3

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



e.g. 023J5431

Comment saisir un numéro de lot (COO)

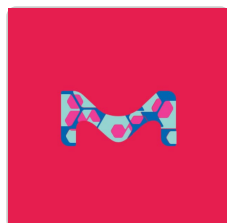
Rechercher

Plus De Documents

Enzyme Explorer

FDS

LES CLIENTS ONT ÉGALEMENT CONSULTÉ

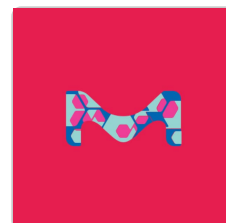


Sigma-Aldrich

574591

Superoxide Dismutase, Human, Recombinant, *E. coli*

Consulter le prix et la disponibilité



Sigma-Aldrich

S9549

Superoxide dismutase-polyethylene glycol from bovine erythrocytes
lyophilized powder, $\geq 1,350$ units/mg protein

Consulter le prix et la disponibilité



Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



Effect of native and oxidized low-density lipoprotein on endothelial nitric oxide and superoxide production : key role of L-arginine availability.

L Vergnani et al.

Circulation, 101(11), 1261-1266 (2000-03-22)

Native and oxidized LDLs (n-LDL and ox-LDL) are involved in the atherogenic process and affect endothelium-dependent vascular tone through their interaction with nitric oxide (NO). In this study we evaluated directly, by using a porphyrinic microsensor, the effect of increasing

The carbonate radical anion-induced covalent aggregation of human copper, zinc superoxide dismutase, and alpha-synuclein: intermediacy of tryptophan- and tyrosine-derived oxidation products.

Hao Zhang et al.

Free radical biology & medicine, 36(11), 1355-1365 (2004-05-12)

In this review, we describe the free radical mechanism of covalent aggregation of human copper, zinc superoxide dismutase (hSOD1). Bicarbonate anion (HCO_3^-) enhances the covalent aggregation of hSOD1 mediated by the SOD1 peroxidase-dependent formation of carbonate radical anion ($\text{CO}_3^{\cdot-}$), a

Effect of Vitis vinifera hydroalcoholic extract against oxaliplatin neurotoxicity: in vitro and in vivo evidence.

Laura Micheli et al.

Scientific reports, 8(1), 14364-14364 (2018-09-27)

Oxaliplatin treatment is associated with the development of a dose-limiting painful neuropathy impairing patient's quality of life. Since oxidative unbalance is a relevant mechanism of oxaliplatin neurotoxicity, we assessed the potential antioxidant properties of Vitis vinifera extract in reducing oxaliplatin-induced

Catalase Overexpression Drives an Aggressive Phenotype in Glioblastoma.

Susanne Flor et al.

Antioxidants (Basel, Switzerland), 10(12) (2021-12-25)

Glioblastoma remains the deadliest form of brain cancer, largely because these tumors become resistant to standard of care treatment with radiation and chemotherapy. Intracellular production of reactive oxygen species (ROS) is necessary for chemo- and radiotherapy-induced

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.



GET YOURS HERE



P Kakkar et al.

Indian journal of biochemistry & biophysics, 21(2), 130-132 (1984-04-01)

[Afficher tous les articles scientifiques apparentés](#)

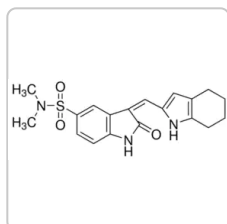
PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

Mitochondrial Stress and ROS

Oxidative stress is mediated, in part, by reactive oxygen species produced by multiple cellular processes and controlled by cellular antioxidant mechanisms such as enzymatic scavengers or antioxidant modulators. Free radicals, such as reactive oxygen species, cause cellular damage via...

PRODUITS CONSULTÉS RÉCEMMENT



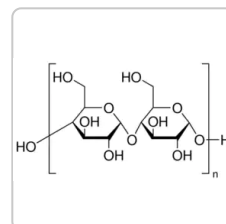
Sigma-Aldrich

S9692

SU 6656

≥98% (HPLC)

[Consulter le prix et la disponibilité](#)



Sigma-Aldrich

S9679

Starch from corn

Unmodified waxy corn starch of essentially pure amylopectin; contains only trace amounts of amylose.

[Consulter le prix et la disponibilité](#)

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.

[GET YOURS HERE](#)[Soyez le premier à donner votre avis sur ce produit](#)

Questions

[Soyez le premier à poser une question](#)

SERVICE TECHNIQUE

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

[Contacter notre Service technique](#)

Brighten up your lab coat!

Subscribe to our scientific newsletters and make your lab mates jealous with a shiny 'Magical Flask' pin.

[GET YOURS HERE](#)

Que pouvons-nous faire pour améliorer cette page spécifique de notre site Internet ?

Envoyer

© 2022 Merck KGaA, Darmstadt, Allemagne et/ou ses sociétés affiliées. Tous droits réservés.

La reproduction d'une quelconque partie du contenu de ce site est strictement interdite sans autorisation.

[Conditions d'utilisation du site](#) | [Politique de confidentialité](#) | [Conditions générales de vente](#) | [Consentement relatif au copyright](#) | [Paramètres des cookies](#)