Creative Enzymes®

Native Human Catalase

Cat. No. NATE-0108

Lot. No. (See product label)

Introduction

Description Catalase activates the decomposition of hydrogen peroxide, a reactive oxygen species, into water and oxygen. It functions as a natural antioxidant, protecting cells against oxidative damage to proteins, lipids and nucleic acids. Catalase has also been used to study the role reactive oxygen species play in gene expression and apoptosis.

Synonyms EC 1.11.1.6; Catalase; catalase; equilase; caperase; optidase; catalase-peroxidase; CAT; H2O2:H2O2 oxidoreductase; 9001-05-2

Product Information

Species Human

Source Human erythrocytes

Form buffered aqueous solution. Solution in 50 mM Tris, pH 8.0

EC Number EC 1.11.1.6

CAS No. 9001-05-2

Molecular Weight tetramer mol wt ~250 kDa

Purity > 90% (SDS-PAGE)

Activity > 30,000 units/mg protein

Pathway Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Amyotrophic lateral sclerosis (ALS), conserved biosystem; Folate Metabolism, organism-specific biosystem; FoxO family signaling, organism-specific biosystem; Glyoxylate and dicarboxylate metabolism, organism-specific biosystem; Glyoxylate and dicarboxylate metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem

Function NADP binding; aminoacylase activity; catalase activity; catalase activity; heme binding; metal ion binding; oxidoreductase activity, acting on peroxide as acceptor; protein homodimerization activity

Unit Definition One unit will decompose 1.0 μmole of H2O2 per min at pH 7.0 at 25°C, while the H2O2 conc. falls from 10.3 to 9.2 mM, measured by the rate of decrease of A240.

Storage and Shipping Information

Storage −20°C