

## Native Murine Catalase

Cat. No. NATE-0110

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; H<sub>2</sub>O<sub>2</sub>:H<sub>2</sub>O<sub>2</sub> oxidoreductase

### Product Information

#### Species

Murine

#### Source

murine liver

#### Form

ammonium sulfate suspension

#### EC Number

EC 1.11.1.6

#### CAS No.

9001-05-2

#### Molecular Weight

tetramer mol wt ~250 kDa

#### Activity

> 500 units/mg protein

#### Optimum pH

~7.0

#### Buffer

Suspension in 2.7 M (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub> solution, pH 6.5

#### Pathway

Amyotrophic lateral sclerosis (ALS), organism-specific biosystem; Cellular responses to stress, organism-specific biosystem; FoxO signaling pathway, organism-specific biosystem

#### Function

NADP binding; aminoacylase activity; antioxidant activity

#### Unit Definition

One unit will decompose 1.0 µmole of H<sub>2</sub>O<sub>2</sub> per min at pH 7.0 at 25°C, while the H<sub>2</sub>O<sub>2</sub> conc. falls from 10.3 to 9.2 mM.

### Storage and Shipping Information

#### Stability

2-8°C