Creative Enzymes®

Sulfite oxidase from H. sapiens, Recombinant

Cat. No. NATE-1229

Lot. No. (See product label)

Introduction

Description	Sulfite oxidase (EC 1.8.3.1) is an enzyme in the mitochondria of all eukaryotes.[citation needed] It oxidizes sulfite to sulfate and, via cytochrome c, transfers the electrons produced to the electron transport chain, allowing generation of ATP in oxidative phosphorylation. This is the last step in the metabolism of sulfur-containing compounds and the sulfate is excreted. Sulfite oxidase is a metallo-enzyme that utilizes a molybdopterin cofactor and a heme group. It is one of the cytochromes b5 and belongs to the enzyme super-family of molybdenum oxotransferases that also includes DMSO reductase, xanthine oxidase, and nitrite reductase.
Synonyms	sulfite oxidase; EC 1.8.3.1; 9029-38-3

Product Information

Species	H. sapiens
Source	E. coli
Form	Supplied in 3.2 M ammonium sulphate
EC Number	EC 1.8.3.1
CAS No.	9029-38-3
Molecular Weight	approx. 50000 Da
Purity	>95 % as judged by SDS-PAGE
Activity	0.5 U/mg
Concentration	1.0 U/ml
Optimum pH	8.5
Optimum temperature	25°C
Unit Definition	One unit is defined as the amount of enzyme required to oxidize 1.0µmol of sulfite to sulfate, per min, in a coupled assay where the hydrogen peroxide formed in the first reaction is reduced by an NADH-peroxidase in the presence of NADH, at 25 °C and pH 8.5.

Usage and Packaging

Preparation Instructions	Agitate vial sufficiently to fully homogenise enzyme precipitate before use.

Storage and Shipping Information

Storage	Store at 4°C (shipped at room temperature)