

## 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)