Creative Enzymes®

# Taurine Dioxygenase from E. coli, Recombinant

*Cat. No. NATE-1648*

*Lot. No.* (See product label)

## Introduction

| | |
|---|---|
| ***Description*** | Taurine dioxygenase (TauD) is a Fe(II) and α-ketoglutaric acid dependent dioxygenase, which enables E.coli to use taurine as a sulfur source. The oligomeric state of the enzyme from E.coli is reported both as a dimer and tetramer. It contains a 2-His, 1- carboxylate facial triad, which is present in most members of the family of Fe(II)/α-KG-dependent enzymes. TauD catalyzes the conversion of the amino acid taurine (2-aminoethane-1-sulfonic acid) to sulfite and aminoacetaldehyde. |
| ***Synonyms*** | TauD; 2-aminoethanesulfonate dioxygenase; Sulfate starvation-induced protein 3; SSI3; alpha-ketoglutarate-dependent taurine dioxygenase |

## Product Information

| | |
|---|---|
| ***Source*** | E. coli |
| ***Form*** | Liquid |
| ***Formulation*** | 0.5 mg/ml in 20 mM Tris-HCl buffer (pH 8.0) containing 100 mM NaCl, 1 mM DTT, 2 mM EDTA and 40% glycerol. |
| ***EC Number*** | EC 1.14.11.17 |
| ***Molecular Weight*** | 34.3 kDa, His tagged |
| ***Purity*** | > 90% by SDS-PAGE |
| ***Activity*** | >170 mU/mg |
| ***Concentration*** | 2 mg/ml |
| ***Unit Definition*** | One unit is the amount of enzyme that converts 1 μmole of taurine to sulfite per minute at pH 6.9 at 30 °C. |

## Storage and Shipping Information

| | |
|---|---|
| ***Storage*** | Aliquot and store at -20°C. Avoid repeated freeze-thaw cycles. |