Creative Enzymes®

Oxalate oxidase from B. subtilis, Recombinant

Cat. No. NATE-1642

Lot. No. (See product label)

Introduction

Description In enzymology, an oxalate oxidase (EC 1.2.3.4) is an enzyme that catalyzes the chemical reaction: oxalate + O2 + 2 H+ ↔ 2 CO2 + H2O2. The 3 substrates of this enzyme are oxalate, O2, and H+, whereas its two products are CO2 and H2O2. This enzyme belongs to the family of oxidoreductases, specifically those acting on the aldehyde or oxo group of donor with oxygen as acceptor. The systematic name of this enzyme class is oxalate:oxygen oxidoreductase. This enzyme participates in glyoxylate and dicarboxylate metabolism. It has 2 cofactors: FAD, and Manganese.

Synonyms OxO; OxOx; OxO_r; aero-oxalo dehydrogenase; oxalic acid oxidase

Product Information

Species B. subtilis

Source E. coli

Form Freeze dried

EC Number EC 1.2.3.4

Molecular Weight 43.6 kDa, His-tagged

Activity > 230 mU/mg

Unit Definition Defined as the amount of enzyme that catayze the conversion of converts 1 μmole of oxalate to CO2 and H2O2 per minute at pH 4.5 and 25°C.

Usage and Packaging

Reconstitution Reconstitute to 2 mg/mL in sterile water, store at -80°C in aliquots and use within 6 months after reconstitution. Avoid repeated freeze-thaw cycles.

Storage and Shipping Information

Storage Store at -20°C.

Stability Stable for at least 2 years as supplied.