Creative Enzymes®

Native Crotalus adamanteus L-Amino Acid Oxidase

Cat. No. NATE-0366

Lot. No. (See product label)

Introduction

Description In enzymology, an L-amino acid oxidase (LAAO) (EC 1.4.3.2) is an enzyme that catalyzes the chemical reaction:an L-amino acid + H2O + O2↔ a 2-oxo acid + NH3 + H2O2. The enzyme was first described in 1944 by A. Zeller and A. Maritz. Not only are LAAOs quite variable in terms of molecular mass, they also vary widely regarding stability. In a similar vein, this enzyme performs in a myriad of biological activities including apoptosis-induction, edema-induction, hemorrhaging, and inhibition or induction of platelet aggregation.

Applications L-amino acid oxidase (LAAO) is used to convert L-amino acids to their corresponding α-keto acids. One unit will oxidatively deaminate 1.0 μmole of L-phenylalanine per min at pH 6.5 at 37 oc. L-amino acid oxidase, from Creative Enzymes, has been used in leucine aminopeptidase (LAP) activity assays. The enzyme has been immobilized and used in an enzymatic flow-injection pr ocedure with chemiluminescence detection for on-site determination of L-alanine

Synonyms L-amino acid oxidase; LAAO; L-AAO; EC 1.4.3.2; 9000-89-9; ophio-amino-acid oxidase; L-amino-acid:oxygen oxidoreductase (deaminating)

Product Information

Source Crotalus adamanteus

Form Type I, dried venom; Type II, aqueous suspension.

EC Number EC 1.4.3.2

CAS No. 9000-89-9

Activity Type I, > 0.3 unit/mg solid; Type II, > 3.0 units/mg protein (biuret).

Buffer H2O: soluble 1.0 mg/mL, clear (lit.)

Unit Definition One unit will oxidatively deaminate 1.0 μmole of L-phenylalanine per min at pH 6.5 at 37°C. (L-Leucine is deaminated at the same rate at pH 7.8 at 37°C.)

Storage and Shipping Information

Storage Type I, −20°C; Type II, 2-8°C.