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.