

L-Glutamate Oxidase from Streptomyces sp., Recombinant

Cat. No. NATE-0393

Lot. No. (See product label)

Introduction

Description

In enzymology, a L-glutamate oxidase is an enzyme that catalyzes the chemical reaction: $\text{L-glutamate} + \text{O}_2 + \text{H}_2\text{O} \rightleftharpoons \text{2-oxoglutarate} + \text{NH}_3 + \text{H}_2\text{O}_2$. The 3 substrates of this enzyme are L-glutamate, O_2 , and H_2O , whereas its 3 products are 2-oxoglutarate, NH_3 , and H_2O_2 . This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-NH₂ group of donors with oxygen as acceptor. It employs one cofactor, FAD.

Synonyms

L-glutamate oxidase; EC 1.4.3.11; 39346-34-4; glutamate (acceptor) dehydrogenase; glutamate oxidase; glutamic acid oxidase; glutamic dehydrogenase (acceptor); L-glutamic acid oxidase

Product Information

Species

Streptomyces sp.

Source

E. coli

Form

lyophilized powder

EC Number

EC 1.4.3.11

CAS No.

39346-34-4

Activity

> 5.0 unit/mg solid

Unit Definition

One unit will form 1.0 μmole of α -ketoglutaric acid from L-glutamic acid per min at pH 7.4 at 30°C.

Storage and Shipping Information

Storage

2-8°C