

(S)-6-hydroxynicotine oxidase

Cat. No. EXWM-1552

Lot. No. (See product label)

Introduction

Description

A flavoprotein (FAD). The enzyme, which participates in nicotine degradation, is specific for the (S) isomer of 6-hydroxynicotine. The bacterium *Arthrobacter nicotinovorans*, in which this enzyme was originally discovered, has a different enzyme that catalyses a similar reaction with the less common (R)-isomer (cf. EC 1.5.3.6, (R)-6-hydroxynicotine oxidase).

Synonyms

L-6-hydroxynicotine oxidase; 6-hydroxy-L-nicotine oxidase; 6-hydroxy-L-nicotine:oxygen oxidoreductase; nctB (gene name)

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.5.3.5

CAS No.

37256-29-4

Reaction

(S)-6-hydroxynicotine + H₂O + O₂ = 1-(6-hydroxypyridin-3-yl)-4-(methylamino)butan-1-one + H₂O₂ (overall reaction); (1a) (S)-6-hydroxynicotine + O₂ = 5-(N-methyl-4,5-dihydro-1H-pyrrol-2-yl)pyridin-2-ol + H₂O₂; (1b) 5-(N-methyl-4,5-dihydro-1H-pyrrol-2-yl)pyridin-2-ol + H₂O = 1-(6-hydroxypyridin-3-yl)-4-(methylamino)butan-1-one (spontaneous)

Notes

This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage

Store it at +4 °C for short term. For long term storage, store it at -20 °C~-80 °C.