Creative Enzymes®

(R)-6-hydroxynicotine oxidase

Cat. No. EXWM-1553

Lot. No. (See product label)

Introduction

Description	A flavoprotein (FAD). The enzyme, which participates in nicotine degradation, is specific for (R) isomer of 6-hydroxynicotine, derived from the uncommon (R)-nicotine. The bacterium Arthrobacter nicotinovorans, in which this enzyme was originally discovered, has a different enzyme that catalyses a similar reaction with the (S)-isomer (cf. EC 1.5.3.5, (S)-6-hydroxynicotine oxidase).
Synonyms	D-6-hydroxynicotine oxidase; 6-hydroxy-D-nicotine oxidase

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.5.3.6
CAS No.	37233-46-8
Reaction	(R)-6-hydroxynicotine + H2O + O2 = 1-(6-hydroxypyridin-3-yl)-4-(methylamino)butan-1-one + H2O2 (overall reaction); (1a) (R)-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 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.