Creative Enzymes®

flavin-containing monooxygenase

Cat. No. EXWM-0887

Lot. No. (See product label)

Introduction

Description	A flavoprotein. A broad spectrum monooxygenase that accepts substrates as diverse as hydrazines, phosphines, boron-containing compounds, sulfides, selenides, iodide, as well as primary, secondary and tertiary amines. This enzyme is distinct from other monooxygenases in that the enzyme forms a relatively stable hydroperoxy flavin intermediate. This microsomal enzyme generally converts nucleophilic heteroatom-containing chemicals and drugs into harmless, readily excreted metabolites. For example, N-oxygenation is largely responsible for the detoxification of the dopaminergic neurotoxin 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine (MPTP).
Synonyms	dimethylaniline oxidase; dimethylaniline N-oxidase; FAD-containing monooxygenase; N,N-dimethylaniline monooxygenase; DMA oxidase; flavin mixed function oxidase; Ziegler's enzyme; mixed-function amine oxidase; FMO; FMO-I; FMO-II; FMO1; FMO2; FMO3; FMO4; FMO5; flavin monooxygenase; methylphenyltetrahydropyridine N-monooxygenase; 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine:oxygen N-oxidoreductase; dimethylaniline monooxygenase (N-oxide-forming)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.13.8
CAS No.	37256-73-8
Reaction	N,N-dimethylaniline + NADPH + H+ + O2 = N,N-dimethylaniline N-oxide + NADP+ + H2O
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 ℃.