Creative Enzymes®

methylxanthine N1-demethylase

Cat. No. EXWM-0776

Lot. No. (See product label)

Introduction

Description	A non-heme iron oxygenase. The enzyme from the bacterium Pseudomonas putida shares an NAD(P)H-FMN reductase subunit with EC 1.14.13.179, methylxanthine N3-demethylase, and has a 5-fold higher activity with NADH than with NADPH. Also demethylate 1-methylxantine with lower efficiency. Forms part of the degradation pathway of methylxanthines.
Synonyms	ndmA (gene name)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.13.178
Reaction	(1) caffeine + O2 + NAD(P)H + H+ = theobromine + NAD(P)+ + H2O + formaldehyde; (2) theophylline + O2 + NAD(P)H + H+ = 3-methylxanthine + NAD(P)+ + H2O + formaldehyde; (3) paraxanthine + O2 + NAD(P)H + H+ = 7-methylxanthine + NAD(P)+ + H2O + formaldehyde
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 ℃.