Creative Enzymes®

methylxanthine N3-demethylase

Cat. No. EXWM-0777

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 1.14.13.178, methylxanthine N1-demethylase, and has higher activity with NADH than with NADPH. Also demethylates caffeine and theophylline with lower efficiency. Forms part of the degradation pathway of methylxanthines.

Synonyms ndmB (gene name)

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.14.13.179

Reaction (1) theobromine + O2 + NAD(P)H + H+ = 7-methylxanthine + NAD(P)+ + H2O + formaldehyde; (2) 3-methylxanthine + O2 + NAD(P)H + H+ = xanthine + 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 ℃.