Creative Enzymes®

Native Bovine Phenylethanolamine N-Methyl Transferase

Cat. No. NATE-0871

Lot. No. (See product label)

Introduction

Description

Phenylethanolamine N-methyltransferase (PNMT) is the enzyme which catalyzes the N-methylation of norepinephrine thereby resulting in the formation of epinephrine as shown below: Norepinephrine + S-Adenosyl methionine (SAM) -------> Epinephrine. The mechanism involves transfer of an active methyl group from S-adenosylmethionine (SAM) to the primary amino group of norepinephrine. Although it is primarily localized in the adrenal medulla, PNMT activity has also been demonstrated in the brain and heart tissues of several mammalian species including humans. PNMT purified from ox, rat and rabbit adrenal medulla have molecular weights in the range of 37,000-38,000. Analysis of PNMT activity could provide valuable information in the evaluation of catecholamine metabolism.

Synonyms

phenylethanolamine N-methyltransferase; noradrenaline N-methyltransferase; noradrenalin N-methyltransferase; norepinephrine methyltransferase; norepinephrine N-methyltransferase; phenethanolamine methyltransferase; phenethanolamine N-methyltransferase; Phenylethanolamine N-Methyl Transferase; PNMT; S-adenosyl-L-methionine:phenylethanolamine-N-methyltransferase; EC 2.1.1.28

Product Information

Species	Bovine
Source	Bovine Adrenal Medulla
Form	Freeze-dried powder
EC Number	EC 2.1.1.28
Molecular Weight	37-38 kDa
Activity	50-100 U/mg protein
Unit Definition	The amount of enzyme which will convert one nanomole of normetanephrine to metanephrine per hour at pH 8.5 at 37°C.

Storage and Shipping Information

Stability	Store at -20°C (-4°F)