Creative Enzymes®

protein N-terminal methyltransferase

Cat. No. EXWM-1847

Lot. No. (See product label)

Introduction

Description	This enzyme methylates the N-terminus of target proteins containing the N-terminal motif [Ala/Pro/Ser]-Pro-Lys after the initiator L-methionine is cleaved. When the terminal amino acid is L-proline, the enzyme catalyses two successive methylations of its α-amino group. When the first amino acid is either L-alanine or L-serine, the enzyme catalyses three successive methylations.The Pro-Lys in positions 2-3 cannot be exchanged for other amino acids.
Synonyms	NMT1 (gene name); METTL11A (gene name)

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 2.1.1.244
Reaction	(1) 3 S-adenosyl-L-methionine + N-terminal-(A,S)PK-[protein] = 3 S-adenosyl-L-homocysteine + N-terminal-N,N,N-trimethyl-N-(A,S)PK-[protein] (overall reaction); (1a) S-adenosyl-L-methionine + N-terminal-(A,S)PK-[protein] = S-adenosyl-L-homocysteine + N-terminal-N-methyl-N-(A,S)PK-[protein]; (1b) S-adenosyl-L-methionine + N-terminal-N-methyl-N-(A,S)PK-[protein] = S-adenosyl-L-homocysteine + N-terminal-N,N-dimethyl-N-(A,S)PK-[protein]; (1c) S-adenosyl-L-methionine + N-terminal-N,N-dimethyl-N-(A,S)PK-serine-[protein] = S-adenosyl-L-homocysteine + N-terminal-N,N,N-trimethyl-N-(A,S)PK-[protein]; (2) 2 S-adenosyl-L-methionine + N-terminal-PPK-[protein] = 2 S-adenosyl-L-homocysteine + N-terminal-N,N-dimethyl-N-PPK-[protein] (overall reaction); (2a) S-adenosyl-L-methionine + N-terminal-PPK-[protein] = S-adenosyl-L-homocysteine + N-terminal-N-methyl-N-PPK-[protein]; (2b) S-adenosyl-L-methionine + N-terminal-N-methyl-N-PPK-[protein] = S-adenosyl-L-homocysteine + N-terminal-N,N-dimethyl-N-PPK-[protein]
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 ℃.