

# Recombinant human Histamine N-Methyltransferase/HNMT protein

Catalog Number: ATGP3727

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-292aa

### UniProt No.

P50135

### NCBI Accession No.

AAH20677

### Alternative Names

Histamine N-methyltransferase isoform 1, HMT, HNMT-S1, HNMT-S2, MRT51

## PRODUCT SPECIFICATION

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### Molecular Weight

37.4 kDa (328aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

### Purity

> 90% by SDS-PAGE

### Endotoxin level

### Biological Activity

Specific activity is > 200nmol/min/mg, and is defined as the amount of enzyme that transfer 1.0nmole of methyl group per minute at 37C

### Tag

His-Tag

### Application

SDS-PAGE, Enzyme Activity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

HNMT also known as Histamine N-methyltransferase. HNMT is found in the cytosol and uses S-adenosyl-L-

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methionine as the methyl donor. HNMT inactivates histamine by N-methylation. Histamine is involved in regulation and modulation of immune response through the stimulation of four distinct subtypes of receptors, H1, H2, H3, and H4, present on the target cells. Histamine is inactivated by the histamine-metabolizing enzyme histamine N-methyltransferase (HNMT) in bronchus, kidney, and the central nervous system. It plays an important role in degrading histamine and in regulating the airway response to histamine. Recombinant human HNMT protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography.

## Amino acid Sequence

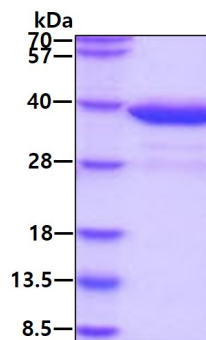
<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGS>MASS MRSLFSDHGK YVESFRRFLN HSTEHQCMQE  
FMDKKLPGII GRIGDTKSEI KILSIGGGAG EIDLQILSKV QAQYPGVCIN NEVVEPSAEQ IAKYKELVAK TSNLENVKFA  
WHKETSSEYQ SRMLEKKELQ KWDFIHMIQM LYYVKDIPAT LKFFHSLTGT NAKMLIIVVS GSSGWDKLWK KYGSRFPQDD  
LCQYITSDDL TQMLDNLGLK YECYDLLSTM DISDCFIDGD ENGDLLWDFL TETCFNATA PDLRAELGK DLQEPEPSAK  
KEGKVLFNNT LSFIVIEA

## General References

Garcia-Martin E., et al. (2009) *Pharmacogenomics*. 10(5):867-83.  
Palikhe NS., et al. (2008) *J Clin Pharm Ther*. 33(5):465-72.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.