

# Recombinant human RNMT protein

Catalog Number: ATGP1068

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-476aa

### UniProt No.

O43148

### NCBI Accession No.

NP\_003790.1

### Alternative Names

mRNA cap guanine-N7 methyltransferase, MET, RG7MT1, DKFZp686H1252, EC 2.1.1.56, hcm1p, hCMT1, HCMT1a, hCMT1c, hMet, hypothetical protein KIAA0396, KIAA0398, MET, mRNA (guanine 7)methyltransferase, mRNA (guanine N(7)) methyltransferase, mRNA cap methyltransferase, OTTHuMP00000162509, RNA guanine 7 methyltransferase, RNA guanine-7-methyltransferase, RNMT

## PRODUCT SPECIFICATION

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### Molecular Weight

57 kDa (496aa)

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 20% glycerol, 100mM NaCl

### Purity

> 90% by SDS-PAGE

### Tag

His-Tag

### Application

SDS-PAGE

### 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

RNMT (mRNA cap guanine-N7 methyltransferase), also known as MET, RG7MT1 or hCMT1c, is a widely expressed nuclear protein that belongs to the mRNA cap methyltransferase family. Cap-dependent mRNA translation requires the methylation of the mRNA guanosine cap by RNMT. RNMT catalyzes the transfer of a methyl group

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from AdoMet (S-adenosylmethionine) to the GpppN end of the growing mRNA at the N-7 position, thereby producing AdoHyc (S-adenosylhomocysteine) and m7GpppN terminated RNA. Recombinant human RNMT protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

## Amino acid Sequence

<MGSSHHHHHH SSGLVPRGSH> MANSAKAE EY EKMSLEQAKA SVNSETESSF NINENTTASG TGLSEKTSVC  
RQVDIARKRK EFEDDLVKES SSCGKDTPSK KRKLDPEIVP EEKDCGDAEG NSKRRKRETE DVPKDKSSTG DGTQNKRIA  
LEDVPEKQKN LEEGHSSTVA AHYNELQEVG LEKRSQSRIF YLRNFNNWMK SVLIGEFLEK VRQKKRDRIT VLDLGCGKGG  
DLLKWKKGRI NKLVTCTDIAD VSVKQCQQR Y EDMKNRRDSE YIFSAEFITA DSSKELLIDK FRDPQMCFDI CSCQFVCHYS  
FESYEQADMM LRNACERLSP GGYFIGTTPN SFELIRRLEA SETESFGNEI YTVKFQKKGD YPLFGCKYDF NLEGVVDVPE  
FLVYFPLLNE MAKKYNMMLV YKKTFLFYE EKIKNNENKM LLKRMQALEP YPANESSKLV SEKVDDYEHA AKYMKNSQVR  
LPLGTLKSE WEATSIYLVF AFEKQQ

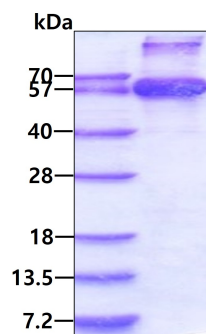
## General References

Cowling VH, et al. (2010) Genes Cancer. 1(6):576-579.

Cowling VH, et al. (2010) Oncogene. 29(6):930-6.

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.