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# Recombinant human Glycine N-methyltransferase/GNMT protein

Catalog Number: ATGP3679

## **PRODUCT INFORMATION**

# **Expression system**

E.coli

#### **Domain**

1-295aa

#### **UniProt No.**

014749

#### **NCBI Accession No.**

NP 061833

#### **Alternative Names**

Glycine N-methyltransferase

# PRODUCT SPECIFICATION

#### **Molecular Weight**

34.9 kDa (315aa) confirmed by MALDI-TOF

#### Concentration

1mg/ml (determined by Bradford assay)

#### **Formulation**

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

#### **Purity**

> 95% by SDS-PAGE

#### **Endotoxin level**

< 1 EU per 1ug of protein (determined by LAL method)

## **Biological Activity**

Specific activity is > 100nmol/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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# Recombinant human Glycine N-methyltransferase/GNMT protein

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# **Description**

Glycine N-methyltransferase, also known as GNMT, catalyzes the synthesis of N-methylglycine (sarcosine) from glycine using S-adenosylmethionine (AdoMet) as the methyl donor. This protein affects DNA methylation by regulating the ratio of S-adenosylmethionine to S-adenosylhomocystine and participates in the detoxification pathway in liver cells. Also it is reported that GNMT expression is diminished in human hepatocellular carcinoma (HCC). Recombinant human GNMT protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

#### **Amino acid Sequence**

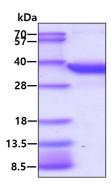
<MGSSHHHHHH SSGLVPRGSH> MVDSVYRTRS LGVAAEGLPD QYADGEAARV WQLYIGDTRS RTAEYKAWLL GLLRQHGCQR VLDVACGTGV DSIMLVEEGF SVTSVDASDK MLKYALKERW NRRHEPAFDK WVIEEANWMT LDKDVPQSAE GGFDAVICLG NSFAHLPDCK GDQSEHRLAL KNIASMVRAG GLLVIDHRNY DHILSTGCAP PGKNIYYKSD LTKDVTTSVL IVNNKAHMVT LDYTVQVPGA GQDGSPGLSK FRLSYYPHCL ASFTELLQAA FGGKCQHSVL GDFKPYKPGQ TYIPCYFIHV LKRTD

#### **General References**

Liao YJ., et al. (2009) Int J Cancer.124(4):816-26. Huang YC., et al. (2008) J Gastroenterol Hepatol. 23(9):1384-9.

# **DATA**

#### **SDS-PAGE**



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

