Recombinant human Glycine N-methyltransferase/GNMT protein

Catalog Number: ATGP3679

PRODUCT INFORMATION

Expression system
E.coli

Domain
1-295aa

UniProt No.
Q14749

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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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

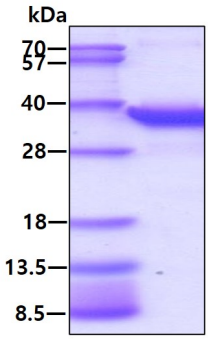
<MGSSHHHHHH SSGLVPRGSH> MVDSVYRTRS LGVAAEGLPD QYADGEAARV WQLYIGDTRS RTAEYKAWLL GLLRQHGCQR VLDVACGTGV DSIMLVEEGF SVTSVDASDK MLKYALKERW NRRHEPAFDK WVIEEANWMT LDKDVPQSAE GGFDAVICLG NSFAHLPDCK GDQSEHRLAL KNIASMVRAG GLLVIDHRNY DHILSTGCAP PGKNIYYKSD LTKDVTTSVL IVNNKAHMVT LDYTVQVPGA GQDGSPGLSK FRLSYYPHCL ASFTELLQAA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