
Product Data Sheet

Product Name: GNMT Human, Active

Cat. No.: GP21703

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Glycine N-methyltransferase; GNMT; Glycine N-Methyltransferase; EC 2.1.1.20 Epididymis Secretory Sperm Binding Protein Li 182mP; HEL-S-182mP.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MVDSVYRTRS LGVAAEGLPD QYADGEAARV WQLYIGDTRS RTAEYKAWLL GLLRQHGCQR VLDVACGTGV DSIMLVEEGF SVTSVDASDK MLKYALKERW NRRHEPAFDK WVIEEANWMT LDKDVPQSAE GGFDAVICLG NSFAPDCK GDQSEHRLAL KNIASMVRAG GLLVIDHRNY DHILSTGCAP PGKNIYYKSD LTKDVTTSVL IVNNKAHMVT LDYTVQVPGA GQDGSPGLSK FRLSYYPHCL ASFTELLQAA FGGKCQHSVL GDFKPYKPGQ TYIPCYFIHV LKRTD.		
Formulation	GNMT protein solution (1mg/ml) containing 20 mM Tris-HCl buffer (pH 8.0) and 20% glycerol.		

Introduction

GNMT is an enzyme that catalyzes the conversion of S-adenosyl-L-methionine with glycine to S-adenosyl-L-homocysteine and sarcosine. GNMT is located in the cytoplasm and acts as a homotetramer. Defects in the GNMT gene causes of GNMT deficiency (hypermethioninemia). GNMT affects DNA methylation by regulating the ratio of S-adenosylmethionine to S-adenosylhomocystine and is involved in the detoxification pathway in liver cells. GNMT expression is diminished in human hepatocellular carcinoma (HCC). GNMT catalyzes the methylation of glycine by using s-adenosylmethionine (adomet) to form n-methylglycine (sarcosine) with the concomitant production of s-adenosylhomocysteine (adohcy). GNMT plays an essential role in the regulation of tissue concentration of adomet and of metabolism of methionine.

Biological Activity

Caution: Product has not been fully validated for medical applications. For research use only.

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Specific activity is > 100 nmol/min/mg, and is defined as the amount of enzyme that transfer 1.0 nmole of methyl group per minute at 37C.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

GNMT Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 315 amino acids (1-295 a.a) and having a molecular mass of 34.9kDa. GNMT is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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