Product Data Sheet

Product Name:	GNMT Human
Cat. No.:	GP21702
Batch No.:	1

Product Data

Purity	>98%	Source	Escherichia Coli.
Phycical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Glycine N-methyltransferase; GNMT.		
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.		
Formulation	The GNMT solution contains 20mM Tris pH 8.0 & 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.

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%

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

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HSA or BSA).Avoid multiple freeze-thaw cycles.

Background

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

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