

GNMT Human, Glycine N-Methyltransferase Human Recombinant Protein , Active

Catalog Number: PROTQ14749-1

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.

Overview

Product Name	GNMT Human, Glycine N-Methyltransferase Human Recombinant Protein , Active
Description	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.
Size	2ug , 10ug , 1mg
Tag	
Form	Sterile filtered colorless solution.
Source	E. Coli
Formulation	GNMT protein solution (1mg/ml) containing 20 mM Tris-HCl buffer (pH 8.0) and 20% glycerol.

Concentration

Storage

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Purity

Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence

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

Biological Activity

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.

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Usage

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