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California Bioscience

Product Datasheet

Product Name	Glycine N-methyltransferase Human Recombinant
Cata No	CB501095
Source	*Escherichia Coli.*
Synonyms	Glycine N-methyltransferase, GNMT.

Description
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.
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.

Physical Appearance
Sterile Filtered colorless solution.

Purity
Greater than 95.0% as determined by SDS-PAGE.

Formulation
The GNMT solution contains 20mM Tris pH 8.0 & 20% glycerol.

Stability
GNMT although stable 4°C for 4 weeks, should be stored desiccated below -18°C.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

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.

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