

## 32-6768: GNMT Human, Active

**Application :** Functional Assay

**Alternative Name :** Glycine N-methyltransferase, GNMT, Glycine N-Methyltransferase, EC 2.1.1.20 Epididymis Secretory Sperm Binding Protein Li 182mP, HEL-S-182mP.

### Description

Source: Escherichia Coli.

Sterile filtered colorless solution.

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-adenosylhomocysteine 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 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.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Greater than 95.0% as determined by SDS-PAGE.

**Content :** GNMT protein solution (1mg/ml) containing 20 mM Tris-HCl buffer (pH 8.0) and 20% glycerol.

**Storage condition :** 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.

**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MVDSVYRTRS LGVAAEGLPD QYADGEAARV WQLYIGDTRS  
RTAEYKAWLL GLLRQHGCQR VLDVACGTGV DSIMLVEEGF SVTSVDASDK MLKYALKERW  
NRRHEPAFDK WVIEEANWMT LDKDVPQSAE GGFDAVICLG NSFALPDCK GDQSEHRLAL  
KNIASMVRAG GLLVIDHRNY DHILSTGCAP PGKNIYYKSD LTKDVTTSVL IVNNKAHMVT LDYTVQVPGA  
GQDGSPGLSK FRLSYYPHCL ASFTELLQAA FGGKQCQHSVL GDFKPYKPGQ TYPCYFIHV LKRTD.

### Application Note

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.