

## 32-2809: SHMT1 Recombinant Protein

### Alternative Name :

Serine hydroxymethyltransferase 1 (soluble),CSHMT,Glycine hydroxymethyltransferase,Serine methylase,14 kDa protein,cytoplasmic serine hydroxymethyltransferase,serine hydroxymethyltransferase cytosolic,EC 2.1.2.1.

### Description

Source : Escherichia Coli. SHMT1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 503 amino acids (1-483 a.a.) and having a molecular mass of 55.2kDa.SHMT1 is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques. SHMT1 is a member of the SHMT family. SHMT1 is the cellular form of serine hydroxymethyltransferase, a pyridoxal phosphate-containing enzyme which catalyzes the reversible conversion of serine and tetrahydrofolate to glycine and 5,10-methylene tetrahydrofolate. In addition, SHMT1 specifically provides one-carbon units for thymidylate biosynthesis, reduces methylenetetrahydrofolate pools for S-adenosylmethionine (SAM) synthesis by synthesizing serine, sequesters 5-methyltetrahydrofolate and inhibits SAM synthesis.

### Product Info

**Amount :** 20 µg

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

**Content :** SHMT1 protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH8.0), 100mM NaCl, 1mM DTT and 10% 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 MTMPVNGAHK DADLWSSHDK MLAQLKDSD VEVYNIKKE  
SNRQRVGLLEL IASENFASRA VLEALGSCLN NKYSEGYPGQ RYYGGTEFID ELETLCQKRA LQAYKLDPQC  
WGVNVQPYSG SPANFAVYTA LVEPHGRIMG LDLPDGGHLT HGFMTDKKKI SATSIFFESM PYKVNPDGTG  
INYDQLEENA RLFHPKLIIA GTSCYSRNLE YARLRKIAD E NGAYLMADMA HISGLVAAGV VPSPFEHCHV  
VTTTTHTKTLR GCRAGMIFYR KGVKSVDPKT GKEILYNLES LINSVFPGL QGGPHNHAIA GVAVALKQAM  
TLEFKVYQH Q VVANCRA LSE ALTELGYKIV TGGSDNHLIL VDLRSKGTDG GRAEKVLEAC SIACNKNTCP  
GDRSALRPSG LRLGTPALTS RGLLEKDFQK VAHFHIRGIE LTLQIQSDTG VRATLKEFKE RLAGDKYQAA  
VQALREEVES FASFFPLPGL PDF.

