

## 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  
SNRQRVGLEL IASENFASRA VLEALGSLN NKYSEGYPGQ RYYGGTEFID ELETLCQKRA LQAYKLDPOC  
WGVNVQPYSG SPANFAVYTA LVEPHGRIMG LDLPDGGHLT HGFMTDKKKI SATSIFFESM PYKVNPDGTG  
INYDQLEENA RLFHPKLIIA GTSCYSRNLE YARLRKIADE NGAYLMADMA HISGLVAAGV VPSPFEHCHV  
VTTTTHTKTLR GCRAGMIFYR KGVKSVDPKT GKEILYNLES LINSVFPGL QGGPHNHAIA GVAVALKQAM  
TLEFKVYQHQ VVANCRALE ALTELGYKIV TGGSDNHLIL VDLRSKGTG GRAEKVLEAC SIACNKNTCP  
GDRSALRPSG LRLGTPALTS RGLLEKDFQK VAHFHIEGIE LTLQIQSDTG VRATLKEFKE RLAGDKYQAA  
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