

## Product datasheet for TP303461M

### SHMT1 (NM\_004169) Human Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins

**Description:** Recombinant protein of human serine hydroxymethyltransferase 1 (soluble) (SHMT1), transcript variant 1, 100 µg

**Species:** Human

**Expression Host:** HEK293T

**Expression cDNA Clone or AA Sequence:** >RC203461 protein sequence  
**Red**=Cloning site **Green**=Tags(s)

MTMPVNGAHKDADLWSSHDKMLAQPLKDS DVEVYNIKKESNRQRVGLELIASENFASRAVLEALGSCLN  
NKYSEGYPGQRYYGTEFIDELETLCQKRALQAYKLDPQCWGVNVQPYSGSPANFAVYTALVEPHGRIMG  
LDLPDGGHLTHGFMTDKKISATSIFFESMPYKVNPD TG YINYDQLEENARLFHPKLIAGTSCYSRNLE  
YARLRKIADENGAYLMADMAHISGLVAAGVVPSPFEHCHVVT TTTHTKLRGCRA GMIFYRKGVKSVDPKT  
GKEILYNLESLINSAVFPGLQG GPHN HAIAGVAVALKQAMTLEFKVYQH QVVANCRALSEALTELGYKIV  
TGGSDNHLILVDLR SKGTDGGRAEKVLEACSIACNKNTCPGDRSALRPSGLRLGTPALTSRGLLEKDFQK  
VAHFIHRGIELTLQIQSDTGVRATLKEFKERLAGDKYQAAVQALREEVESFASFFPLPLPDF

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Tag:** C-Myc/DDK

**Predicted MW:** 52.9 kDa

**Concentration:** >0.05 µg/µL as determined by microplate BCA method

**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining

**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

**Storage:** Store at -80°C.

**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.



[View online >](#)

RefSeq: [NP\\_004160](#)

Locus ID: 6470

UniProt ID: [P34896](#)

RefSeq Size: 2553

Cytogenetics: 17p11.2

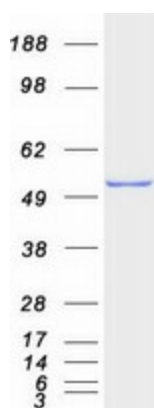
RefSeq ORF: 1449

Synonyms: CSHMT; SHMT

**Summary:** This gene encodes the cytosolic form of serine hydroxymethyltransferase, a pyridoxal phosphate-containing enzyme that catalyzes the reversible conversion of serine and tetrahydrofolate to glycine and 5,10-methylene tetrahydrofolate. This reaction provides one-carbon units for synthesis of methionine, thymidylate, and purines in the cytoplasm. This gene is located within the Smith-Magenis syndrome region on chromosome 17. A pseudogene of this gene is located on the short arm of chromosome 1. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2013]

**Protein Pathways:** Cyanoamino acid metabolism, Glycine, serine and threonine metabolism, Metabolic pathways, Methane metabolism, One carbon pool by folate

### Product images:



Coomassie blue staining of purified SHMT1 protein (Cat# [TP303461]). The protein was produced from HEK293T cells transfected with SHMT1 cDNA clone (Cat# [RC203461]) using MegaTran 2.0 (Cat# [TT210002]).