

Recombinant Human SHMT1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. SHMT1-742H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	SHMT1 MS Standard C13 and N15-labeled recombinant protein (NP_004160) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.
Species	Human
Source	HEK293
Description	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.
Molecular Mass	53.1 kDa
AA Sequence	MTMPVNGAHKDADLWSSHDKMLAQPLKDSDEVYNIKKESNRQVRVGLELIASENF ASRAVLEALGSCLNKYSEGYPGQRYGGTEFIDELETLCQKRALQAYKLDPQCWG VNVQPYSGLSPANFAVYTALVEPHGRIMGLDLPDGGHLTHGFMTDKKKISATSIFFES MPYKVNPDGTGYINYDQLEENARLFHPKLIAGTSCYSRNLEYARLRKIADENGAYLMA DMAHISGLVAAGVVPSPFHCHVVTTHKTLRGCRAGMIFYRKGVKSVDPKTGKEI LYNLESLINSAVFPGLQGPHNHAAGVAVALKQAMTLEFKVYQHQVVANCRALSEA

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LTELGYKIVTGGSDNHLILVDLRSKGTGGRAEKVLEACSIACNKNTCPGDRSALRP
SGLRLGTPALTSRGLLEKDFQKVAHFIHRGIELTLQIQSDTGVRATLKEFKERLAGDK
YQAAVQALREEVESFASFFPLPLPDFTRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

Gene Name SHMT1 serine hydroxymethyltransferase 1 [Homo sapiens (human)]

Official Symbol SHMT1

Synonyms SHMT1; serine hydroxymethyltransferase 1 (soluble); serine hydroxymethyltransferase, cytosolic; 14 kDa protein; CSHMT; cytoplasmic serine hydroxymethyltransferase; MGC15229; MGC24556; SHMT; serine methylase; glycine hydroxymethyltransferase;

Gene ID 6470

mRNA Refseq NM_004169

Protein Refseq NP_004160

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MIM 182144

UniProt ID P34896

SDS-PAGE



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