

Recombinant Human SHMT1, His-tagged

Cat. No. SHMT1-31357TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 184-483 of Human SHMT1, with N terminal His tag, 300aa, MWt 35kDa,
Species	Human
Source	E.coli
ProteinLength	184-483 a.a.
Description	This gene encodes the cellular 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. Alternative splicing of this gene results in 2 transcript variants encoding 2 different isoforms. Additional transcript variants have been described, but their biological validity has not been determined.
Conjugation	HIS
Form	Lyophilised:Reconstitution with 114 µl aqua dest.
Storage buffer	Preservative: NoneConstituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5

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Storage	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	DQLEENARLFHPKLIAGTSCYSRNLEYARLRKIADENGA YLMADMAHISGLVAAGV VPSPFEHCHVVTTHHTKTLRG CRAGMIFYRKGVKSVDPKTGKEILYNLESLINSAVF PG LQGGPHNHAIAGVAVALKQAMTLEFKVYQHQQVVANCRA LSEALTELGKIVTGG SDNHLILVDLRSGTDGGRAEKVL EACSIACNKNTCPGDRSALRPSGLRLGTPALTS RGLLE KDFQKVAHFIHRGIELTLQIQSDTGVRATLKEFKERLA GDKYQAAVQALREE VESFASLFPLPGLPDF
Sequence Similarities	Belongs to the SHMT family.
GENE INFORMATION	
Gene Name	SHMT1 serine hydroxymethyltransferase 1 (soluble) [Homo sapiens]
Official Symbol	SHMT1
Synonyms	SHMT1; serine hydroxymethyltransferase 1 (soluble); serine hydroxymethyltransferase, cytosolic; 14 kDa protein; CSHMT; cytoplasmic serine hydroxymethyltransferase; MGC15229; MGC24556; SHMT;
Gene ID	6470
mRNA Refseq	NM_004169
Protein Refseq	NP_004160
MIM	182144
Uniprot ID	P34896

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Chromosome Location	17p11.2
Pathway	C1-unit interconversion, eukaryotes, organism-specific biosystem; C1-unit interconversion, eukaryotes, conserved biosystem; Carnitine synthesis, organism-specific biosystem; Cyanoamino acid metabolism, organism-specific biosystem; Cyanoamino acid metabolism, conserved biosystem;
Function	L-allo-threonine aldolase activity; amino acid binding; glycine hydroxymethyltransferase activity; glycine hydroxymethyltransferase activity; protein homodimerization activity;