

Product datasheet for PH305102

SHMT1 (NM_148918) Human Mass Spec Standard

Product data:

Product Type:	Mass Spec Standards
Description:	SHMT1 MS Standard C13 and N15-labeled recombinant protein (NP_683718)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC205102
Predicted MW:	49 kDa
Protein Sequence:	>RC205102 protein sequence Red=Cloning site Green=Tags(s)

MTMPVNGAHKDADLWSSHDKMLAQPLKDSDEVYNIKKESNRQRVGLELIASENFASRAVLEALGSLN
NKYSEGYPGQRYGGTEFIDELETLCQKRALQAYKLDPQCWGVNVQPYSGSPANFAVYTTALVEPHGRIMG
LDLPDGGHLTHGFMTDKKISATSIFFESMPYKVNPDYINQDLEENARLFHPKLIAGTSCYSRNL
YARLRKIADENGAYLMADMAHISGLVAAGVVPSPFEHCHVTTTTHTKTLRGCRAGMIFYRKGVAVALKQA
MTLEFKVYQHQQVANCRLSEALTELYKIVTGGSDNHLILVDLRSKGTGGRAEKVLEACSIACNKNTC
PGDRSALRPSGLRLGTPALTSRGLLEKDFQKVAHFIRHGIELTLQIQSDTGVRATLKEFKERLAGDKYQA
AVQALREEVESFASLFPLPLPDF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u>NP_683718</u>
RefSeq Size:	2436
RefSeq ORF:	1332
Synonyms:	CSHMT; SHMT



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Locus ID: 6470

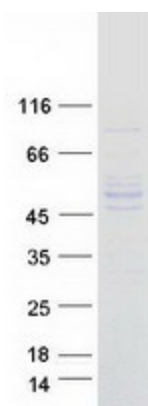
UniProt ID: [P34896](#)

Cytogenetics: 17p11.2

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# [TP305102]). The protein was produced from HEK293T cells transfected with SHMT1 cDNA clone (Cat# [RC205102]) using MegaTran 2.0 (Cat# [TT210002]).