

Product datasheet for **SC321518**

SHMT1 (NM_004169) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHMT1 (NM_004169) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHMT1
Synonyms:	CSHMT; SHMT
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_004169.3
 CAGGCACCGGCGGCGCTAGGACGGAGGCGTCGCTAGGCAGCTTCGAACCAAGTGAATG
 ACGATGCCAGTCAACGGGGCCACAAGGATGCTGACCTGTGGTCTCACATGACAAGATG
 CTGGCACAACCCCTCAAAGACAGTGTGTTGAGGTTTACAACATCATTAAAGAAGGAGAGT
 AACCGGCAGAGGGTTGGATTGGAGCTGATTGCCTCGGAGAATTCGCCAGCCGAGCAGTT
 TTGGAGGCCCTAGGCTCTTGCTTAAATAACAAACTCTGAGGGGTACCCGGGCCAGAGA
 TACTATGGCGGGGACTGAGTTTATTGATGAACTGGAGACCCTCTGTGAGAAGCGAGCCCTG
 CAGGCCTATAAGCTGGACCCACAGTGTGGGGGTCAACGTCCAGCCCTACTCAGGCTCC
 CCTGCAAACCTTGTGTACTGACCTGCCCTGGTGAACCCCATGGGCGCATCATGGCCTG
 GACCTTCCGGATGGGGGCCACTGACCCATGGGTTTATGACAGACAAGAAGAAAACTCT
 GCCACGTCCATCTTTTGAATCTATGCCCTACAAGGTGAACCCAGATACTGGCTACATC
 AACTATGACCAGCTGGAGGAGAACGCACGCCTTCCACCCGAAGCTGATCATCGCAGGA
 ACCAGTGCTACTCCGAAACCTGGAATATGCCCGGCTACGGAAGATTGCAGATGAGAAC
 GGGCGTATCTCATGGCGGACATGGCTCACATCAGCGGGTGGTGGCGGTGGCGTGGT
 CCCTCCCATTTGAACACTGCCATGTGGTGACCACCACCTACAAGACCCTGCGAGGC
 TGCCGAGCTGGCATGATCTTCTACAGGAAAGGAGTGAAAAGTGTGGATCCAAGACTGGC
 AAAGAGATTCTGTACAACCTGGAGTCTTATCAATTCTGCTGTGTTCCCTGGCCTGCAG
 GGAGGTCCCACAACCACGCCATTGCTGGGGTGTGTGGCACTGAAGCAAGCTATGACT
 CTGGAATTTAAAGTTTATCAACACCAGGTGGTGGCCAACCTGCAGGGCTCTGTCTGAGGC
 CTGACGGAGCTGGGCTACAAAATAGTCACAGGTGGTCTGACAACCATTTGATCCTTGTG
 GATCTCCGTTCCAAGGCACAGATGGTGGAAAGGCTGAGAAGGTGCTAGAAGCCTGTTCT
 ATTGCCTGCAACAAGAACACCTGTCCAGGTGACAGAAGCGCTCTGCGGCCAGTGGACTG
 CGGTGGGGACCCAGCACTGACGTCCCCTGGACTTTTGGAAAAAGACTTCCAAAAAGTA
 GCCCACTTTATTACAGAGGGATAGAGCTGACCCTGCAGATCCAGAGCGACACTGGTGT
 AGAGCCACCTGAAAGATTCAAGGAGAGACTGGCAGGGGATAAGTACCAGGCGGCGTG
 CAGGCTCTCCGGGAGGAGTTGAGAGCTTCGCCTCTTTCTCCCTCTGCCTGGCCTGCCT
 GACTTCTAAAGGAGCGGGCCACTCTGGACCCACTGGCGCCACAGAGGAAGCTGGCTGC
 CGGAGGACCCCACTTGAGAGATGGATGAGCTGCTCAAAGGGGAAGTGTGACTCGG
 GCCCTTTGAGGGGTTTCTTTGGACTTTTTTCATGTTTTCTTCAAAAATCAAAATTTGT
 TTAAGTCTCATTGTTAGTAATTCTGGGACAGGTTATTAAGGATTTAAATTTGAACCTGG
 CTTTCTCACAGCTGGACATAATTCTAGGAAAATAAGATACTATGTGCCACTTGGTCATA
 ATCATTTAGATGGTGTAGGGCAAAGCTGTTAGAAAGATTGTAGCGTTTTACTCTCCC
 TGGGCTTTCCTCCGCCTTGTGCAACAGAGAGGAAATGCCCATGTCCACAGCTTGTACAC
 ACTGCCCCCTCACTATCTTGTATCCAGTGGCATGCCAAAGGAGAACTGAATTAGCTTCT
 GAGGCTTCTGCTGTAATCAGAAGTGTATGTTAGTCAAGAGTAAACAAGATGCACCCAGT
 ATGGTGGGAGGGTTTTGCTGTCAGTAGCTCAAAGTATGGTGTAGAAAATGGCCTCCTCCCT
 CCATCTGGGAAGTCCCAGTCCCATCCTGGTGTGAGAATCAACCAGGCTTTCCTGCTCCA
 CCTGAGATAACCAACTCCCTCCCATAATCAGGAAGCCAAATGTCACCTTCCAAAAGAAAT
 TTTATTTTACAGTGAAGTGAAGTCAAAAACATAGATGACCATTTTTAATAAGCACAATCAA
 ATTTTTAACACAGAATGTCTACAAGAATTATAGCTTTAAAAAATAACAACCAATTTTTAT
 ATTTCAAAAATATTTGAACTCAAATAAATTAATTTCTAAAAAGTAAAAAAAAAAAAAAAA
 AAAAAA

Restriction Sites: Please inquire
ACCN: NM_004169
Insert Size: 2500 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	NM_004169.3 , NP_004160.3
RefSeq Size:	2540 bp
RefSeq ORF:	1452 bp
Locus ID:	6470
UniProt ID:	P34896
Cytogenetics:	17p11.2
Domains:	SHMT
Protein Pathways:	Cyanoamino acid metabolism, Glycine, serine and threonine metabolism, Metabolic pathways, Methane metabolism, One carbon pool by folate
Gene Summary:	<p>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]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p>