

Product datasheet for **SC319904**

SHMT2 (NM_005412) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHMT2 (NM_005412) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHMT2
Synonyms:	GLYA; HEL-S-51e; NEDCASB; 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_005412.4
 CCGAGTTGCGATGCTGTACTTCTCTTTGTTTTGGGCGGCTCGGCCTCTGCAGAGATGTGG
 GCAGCTGGTCAGGATGGCCATTCGGGCTCAGCACAGCAACGCAGCCCAGACTCAGACTGG
 GGAAGCAAACAGGGGCTGGACAGCCAGGAGAGCTGTCCGACAGTGATCCTGAGATGTG
 GGAGTTGCTGCAGAGGGAGAAGGACAGGCAGTGTCTGGCCTGGAGCTCATTGCCTCAGA
 GAACTTCTGCAGCCGAGCTGCGCTGGAGCCCTGGGGTCTGTCTGAACAACAAGTACTC
 GGAGGGTTATCCTGGCAAGAGATACTATGGGGGAGCAGAGTGGTGGATGAAATTGAGCT
 GCTGTGCCAGCGCCGGGCTTGGAAAGCCTTTGACCTGGATCCTGCACAGTGGGGAGTCAA
 TGTCAGCCCTACTCCGGGTCCCCAGCCAACTGGCCGTCTACACAGCCCTTCTGCAACC
 TCACGACCGGATCATGGGGCTGGACCTGCCGATGGGGGCCATCTCACCCACGGTACAT
 GTCTGACGTCAAGCGGATATCAGCCACGTCCATCTTCTTCGAGTCTATGCCCTATAAGCT
 CAACCCCAAAACTGGCCTCATTGACTACAACCAGCTGGCACTGACTGCTCGACTTTTCCG
 GCCACGGCTCATATAGCTGGCACCAGCGCCTATGCTCGCCTCATTGACTACGCCCGCAT
 GAGAGAGGTGTGTGATGAAGTCAAAGCACACCTGCTGGCAGACATGGCCACATCAGTGG
 CCTGGTGGCTGCCAAGGTGATTCCTCGCCTTTCAAGCACGCGGACATCGTCACCACCAC
 TACTCACAAAGACTCTTCGAGGGGCCAGGTCAAGGCTCATCTTCTACCGAAAGGGGTGAA
 GGCTGTGGACCCCAAGACTGGCCGGGAGATCCCTTACACATTTGAGGACCGAATCAACTT
 TGCCGTGTTCCCATCCCTGCAGGGGGGCCCCACAATCATGCCATTGCTGCAGTAGCTGT
 GGCCCTAAAGCAGGCCTGCACCCCATGTTCCGGGAGTACTCCCTGCAGGTTCTGAAGAA
 TGCTCGGGCCATGGCAGATGCCCTGCTAGAGCGAGGCTACTCACTGGTATCAGGTGGTAC
 TGACAACCACCTGGTGTGGTGGACCTGCGGCCAAGGGCCTGGATGGAGCTCGGGCTGA
 GCGGGTGTAGAGCTTGTATCCATCACTGCCAACAAGAACACCTGCTCTGGAGACCGAAG
 TGCCATCACACCGGGCGGCTGCGGCTTGGGGCCCAGCCTTAACTTCTCGACAGTTCCG
 TGAGGATGACTTCCGGAGAGTTGTGGACTTTATAGATGAAGGGTCAACATTGGCTTAGA
 GGTGAAGAGCAAGACTGCCAAGCTCCAGGATTTCAAATCCTTCTGCTTAAGGACTCAGA
 AACAAAGTCAAGCTCTGGCCAACCTCAGGCAACGGGTGGAGCAGTTTGGCAGGGCCTTCCC
 CATGCCTGGTTTTGATGAGCATTGAAGGCACCTGGGAAATGAGGCCACAGACTCAAAGT
 TACTCTCCTTCCCCTACCTGGGCCAGTAAATAGAAAGCCTTTCTATTTTTTGGTGGG
 GAGGGAAGACCTCACTTAGGGCAAGAGCCAGGTATAGTCTCCCTTCCCAGAATTTGTA
 ACTGAGAAGATCTTTTCTTTTCTTTTTTGGTAACAAGACTTAGAAGGAGGGCCAGG
 CACTTTCTGTTTGAACCCCTGTATGATCACAGTGTGAGAGACGCGTCTCTTTCTGGG
 GAAGTTGAGGAGTGCCCTTCAGAGCCAGTAGCAGGACAGGGTGGGTAGGCACCCTCCTTC
 CTGTTTTTATCTAATAAAATGCTAACCTGCCCTGAGTTTCCATTACTGTGGGTGGGGTTC
 CCCTGGGCCAAACAGTGATTTGTCTCCCTCAATGTGTACACCGCTCCGCTCCCACCACCG
 CTACCACAAGGACCCCGGGGCTGCAGCCTCCTCTTTCTGTCTCTGATCAGAGCCGACAC
 CAGACGTGATTAGCAGGCGCAGCAAATTCATTTGTTAAATGAAATTGATTTTGA
 AAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_005412

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:	<u>NM_005412.4</u> , <u>NP_005403.2</u>
RefSeq Size:	2113 bp
RefSeq ORF:	1515 bp
Locus ID:	6472
UniProt ID:	<u>P34897</u>
Cytogenetics:	12q13.3
Domains:	SHMT
Protein Pathways:	Cyanoamino acid metabolism, Glycine, serine and threonine metabolism, Metabolic pathways, Methane metabolism, One carbon pool by folate
Gene Summary:	This gene encodes the mitochondrial form of a pyridoxal phosphate-dependent enzyme that catalyzes the reversible reaction of serine and tetrahydrofolate to glycine and 5,10-methylene tetrahydrofolate. The encoded product is primarily responsible for glycine synthesis. The activity of the encoded protein has been suggested to be the primary source of intracellular glycine. The gene which encodes the cytosolic form of this enzyme is located on chromosome 17. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2009] Transcript Variant: This variant (1) encodes the longest isoform (1).