

Product datasheet for **SC125794**

SHMT2 (BC032584) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SHMT2 (BC032584) Human Untagged Clone
Tag:	Tag Free
Symbol:	SHMT2
Synonyms:	GLYA; serine hydroxymethyltransferase 2 (mitochondrial); SHMT
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for BC032584 edited
 CCACGCGTCCGCTTCTCCGACAGCTTGCTGCCCTAGACCAGAGTTGGTGGCTGGACCTC
 CTGCGACTTCCGAGTTGCGATGCTGTACTTCTCTTTGTTTTGGGCGGCTCGGCCTCTGCA
 GAGATGTGGGCAGCTGGTCAGGATGGCCATTGGGCTCAGCACAGCAACGCAGCCAGAC
 TCAGACTGGGGAAGCAACAGGGGCTGGACAGGCCAGGAGAGCCTGTGGACAGTGATCC
 TGAGATGTGGGAGTTGCTGCAGAGGGAGAAGGACAGGCAGTGTCTGGCCTGGAGCTCAT
 TGCCCTCAGAGAACTTCTGCAGCCGAGCTGCGCTGGAGGCCCTGGGGTCTGTCTGAACAA
 CAAGTACTCGGAGGGTTATCCTGGCAAGAGATACTATGGGGAGCAGAGGTGGTGGATGA
 AATTGAGCTGCTGTGCCAGCGCCGGCCTTGAAGCCTTTGACCTGGATCCTGCACAGTG
 GGGAGTCAATGTCCAGCCCTACTCCGGTCCCCAGCCAACCTGGCCGTCTACACAGCCCT
 TCTGCAACCTCACGACCGGATCATGGGGCTGGACCTGCCCGATGGGGCCATCTCACCCA
 CGGCTACATGTCTGACGTCAAGCGGATATCAGCCACGTCCATCTTCTCGAGTCTATGCC
 CTATAAGCTCAACCTGGCACTGACTGCTCGACTTTCCGGCCACGGCTCATCATAGCTGG
 CACCAGCGCTATGCTCGCCTATTGACTACGCCCGCATGAGAGAGGTGTGTGATGAAGT
 CAAAGCACACCTGCTGGCAGACATGGCCACATCAGTGGCCTGGTGGCTGCCAAGGTGAT
 TCCTCGCTTTCAAGCACGCGGACATCGTCACCACCCTACTACAAGACTCTTCGAGG
 GGCCAGGTCAGGGCTCATCTTCTACCGAAAGGGTGAAGGCTGTGGACCCCAAGACTGG
 CCGGGAGATCCCTTACACATTTGAGGACCGAATCAACTTTGCCGTGTCCCATCCCTGCA
 GGGGGGCCCCACAATCATGCCATTGCTGCAGTAGCTGTGGCCCTAAAGCAGGCCATGCAC
 CCCCATGTTCCGGGAGTACTCCCTGCAGTTCTGAAGAATGCTCGGGCCATGGCAGATGC
 CCTGCTAGAGCGAGGCTACTCACTGGTATCAGGTGGTACTGACAACCCTGGTGTGGT
 GGACTCGGCCCAAGGGCCTGGATGGAGCTCGGGCTGAGCGGGTGTAGAGCTTGTATC
 CATCACTGCCAACAGAACACCTGTCTTGAGACCGAAGTGCCATCACACCGGGCCGCT
 GCGGCTTGGGGCCAGCCTTAACTTCTCGACAGTTCGTGAGGATGACTTCCGGAGAGT
 TGTGGACTTTATAGATGAAGGGTCAACATTGGCTTAGAGGTGAAGAGCAAGACTGCCAA
 GCTCCAGGATTTCAAATCCTTCTGCTTAAAGACTCAGAAAACAAGTCAGCGTCTGGCCAA
 CCTCAGGCAACGGGTGGAGCAGTTTCCAGGGCCTTCCCATGCCTGGTTTTGATGAGCA
 TTGAAGGCACCTGGGAAATGAGGCCACAGACTCAAAGTACTCTCTTCCCTACCTG
 GGCCAGTGAATAGAAAGCCTTTCTATTTTTTGGTGGGAGGGAAGACCTCTCACTTAG
 GGCAAGAGCCAGGTATAGTCTCCCTTCCAGAATTTGTAAGTGAAGATCTTTTCTTTT
 TCCTTTTTTGGTAACAAGACTTAGAAGGAGGGCCAGGCACTTTCTGTTTGAACCCCTG
 TCATGATCACAGTGTAGAGACGCTCCTTTCTTGGGGAAGTTGAGGAGTGCCCTTCA
 GAGCCAGTAGCAGGCAGGGTGGTAGGCACCCTCCTTCTGTTTTATCTAATAAAATG
 CTAACCTGCAAAAAAAAAAAAAA

5' Read Nucleotide Sequence: >OriGene 5' read for BC032584 unedited
 NGGGGTTTTTCGATTTGTATACGATTACTATAGGCGGCCGCAATTCGATCTGGTACCG
 GTGCCGNAATCCCGGATATCGTCGACCACGGTCCGCTTCTCCGACAGCTTGTGTC
 CCTAGACCAGAGTTGGTGGCTGGACCTCCTGCGACTTCCGAGTTGCGATGCTGTACTTCT
 CTTTGTGTTTTGGGCGGCTCGGCCTCTGCAGAGATGTGGGACAGTGGTCAGGATGGCCATC
 GGGCTCAGCACAGCAACGCAGCCAGACTCAGACTGGGGAAGCAACAGGGGCTGGACAG
 GCCAGGAGAGCCTGTGGACAGTATCCTGAGATGTGGGAGTTGCTGCAGAGGGAGAAGG
 ACAGGCAGTGTCTGGCCTGGAGCTCATTGCCTCAGAGAATCTGCAGCCGAGCTGCGC
 TGGAGGCCCTGGGTCTGTCTGAACAACAAGTACTCGGAGGGTATCCTGGCAAGAGAT
 ACTATGGGGGAGCAGAGGTGGTGGATGAAATTGAGCTGCTGTGCCAGCGCCGGCCTTGG
 AAGCCTTTGACCTGGATCCTGCACAGTGGGAGTCAATGTCCAGCCCTACTCCGGTCCC
 CAGCCAACCTGGCCGTCTACACAGCCCTTCTGCAACCTCACGACCGGATCATGGGGCTGG
 ACCTGCCCGATGGGGCCATCTACCCACGGCTACATGTCTGACGTCAAGCGGATATCAG
 CCACGTCCATCTTCTCGAGTCTATGCCCTATAAGCTCAACCTGGCACTGACTGCTCGAC
 TTTTCCGCCACGGCTCATCATAGCTGGCACCAGCCCTATGCTCGCCTCATTGACTACG
 CCCGATGAGAGAGGTGTGTGATGAAGTCAAAGCC

Restriction Sites:	NotI-NotI
ACCN:	BC032584
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).
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:	BC032584.1 , AAH32584.1
RefSeq Size:	1945 bp
Locus ID:	6472
Cytogenetics:	12q13.3
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]