

## Product datasheet for SC312033

## SHMT2 (AK055053) Human Untagged Clone

**Product data:** 

**Product Type: Expression Plasmids** 

**Product Name:** SHMT2 (AK055053) Human Untagged Clone

Tag: Tag Free Symbol: SHMT2

Synonyms: GLYA; HEL-S-51e; SHMT

Vector: pCMV6 series

>NCBI ORF sequence for AK055053, the custom clone sequence may differ by one or more **Fully Sequenced ORF:** 

nucleotides

ATGCTGTACTTCTCTTTGTTTTGGGCGGCTCGGCCTCTGCAGAGATGTGGGCAGCTGGTC AGGATGGCCATTCGGGCTCAGCACAGCAACGCAGCCCAGACTCAGACTGGGGAAGCAAAC AGGGGCTGGACAGGCCAGGAGAGCCTGTCGGACAGTGATCCTGAGATGTGGGAGTTGCTG CAGAGGGAGAAGGACAGGCAGTGTCGTGGCCTGGAGCTCATTGCCTCAGAGGTGGGACCT GGGGAGATGGGCAGGGGTTGGGCCACCATGGGTACAGGAAGTAACAAAGTTATCTTAACT 

CTTATCTCCCTCAAGCAAAGGCAGTGCAAGTCCAGTTTATGGGGT

**Restriction Sites:** Please inquire

ACCN: AK055053

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.

The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube Components:

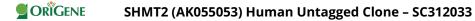
containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).



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**Reconstitution Method:** 

- 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>AK055053.1</u>

 RefSeq Size:
 3412 bp

 RefSeq ORF:
 3412 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]