

## Product datasheet for **TL301707**

### SHMT1 Human shRNA Plasmid Kit (Locus ID 6470)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	SHMT1 Human shRNA Plasmid Kit (Locus ID 6470)
Locus ID:	6470
Synonyms:	CSHMT; SHMT
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	SHMT1 - Human, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 6470). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	<a href="#">NM_001281786</a> , <a href="#">NM_004169</a> , <a href="#">NM_148918</a> , <a href="#">NM_004169.1</a> , <a href="#">NM_004169.2</a> , <a href="#">NM_004169.3</a> , <a href="#">NM_004169.4</a> , <a href="#">NM_148918.1</a> , <a href="#">NM_148918.2</a> , <a href="#">NM_001281786.1</a> , <a href="#">BC007979</a> , <a href="#">BC007979.2</a> , <a href="#">BC022874</a> , <a href="#">BC022874.1</a> , <a href="#">BC038598</a> , <a href="#">BM792235</a>
UniProt ID:	<a href="#">P34896</a>
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]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .



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**Performance  
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).