

## Product datasheet for **TF514641**

### Dnmt1 Mouse shRNA Plasmid (Locus ID 13433)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Dnmt1 Mouse shRNA Plasmid (Locus ID 13433)
Locus ID:	13433
Synonyms:	Cxxc9; Dnmt; Dnmt1o; m.Mmul; MCMT; Met-1; Met1; MommeD; MommeD2; MTa; MTase
Vector:	pRFP-C-RS (TR30014)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Dnmt1 - Mouse, 4 unique 29mer shRNA constructs in retroviral RFP vector(Gene ID = 13433). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRFP-C-RS Vector, TR30015, included for free.
RefSeq:	<a href="#">BC048148</a> , <a href="#">BC053047</a> , <a href="#">NM_001199431</a> , <a href="#">NM_001199432</a> , <a href="#">NM_001199433</a> , <a href="#">NM_010066</a> , <a href="#">NM_010066.1</a> , <a href="#">NM_010066.2</a> , <a href="#">NM_010066.3</a> , <a href="#">NM_010066.4</a> , <a href="#">NM_001199432.1</a> , <a href="#">NM_001199433.1</a> , <a href="#">NM_001199431.1</a> , <a href="#">BC053047.1</a> , <a href="#">BC022927</a> , <a href="#">BC119483</a>
UniProt ID:	<a href="#">P13864</a>
Summary:	This gene encodes a methyltransferase that preferentially methylates cytosines of CpG residues in hemimethylated DNA to generate fully methylated CpG base pairs during DNA replication. This enzyme plays roles in diverse cellular processes including cell cycle regulation, DNA repair, and telomere maintenance. The encoded protein is composed of an N-terminal domain with a nuclear localization sequence and replication fork-targeting domain, a DNA-binding CXXC domain, two bromo-adjacent homology domains, and a C-terminal catalytic domain. Mouse embryonic stem cells mutant for this gene are viable, but when introduced into the germ line, cause a recessive lethal phenotype with mutant embryos displaying stunted growth and developmental defects. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]
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).