

## **Product datasheet for TG313404**

## **DNMT1 Human shRNA Plasmid Kit (Locus ID 1786)**

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** DNMT1 Human shRNA Plasmid Kit (Locus ID 1786)

**Locus ID:** 1786

Synonyms: ADCADN; AIM; CXXC9; DNMT; HSN1E; m.Hsal; MCMT

**Vector:** pGFP-V-RS (TR30007)

E. coli Selection: Kanamycin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

**Components:** DNMT1 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 1786).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.

**RefSeq:** NM 001130823, NM 001318730, NM 001318731, NM 001379, NM 001379.1, NM 001379.2,

NM 001379.3, NM 001130823.1, NM 001130823.2, BC092517, BC126227, BC144093,

NM 001130823.3

UniProt ID: P26358

**Summary:** This gene encodes an enzyme that transfers methyl groups to cytosine nucleotides of

genomic DNA. This protein is the major enzyme responsible for maintaining methylation patterns following DNA replication and shows a preference for hemi-methylated DNA. Methylation of DNA is an important component of mammalian epigenetic gene regulation.

Aberrant methylation patterns are found in human tumors and associated with

developmental abnormalities. Variation in this gene has been associated with cerebellar ataxia, deafness, and narcolepsy, and neuropathy, hereditary sensory, type IE. Alternative

splicing results in multiple transcript variants. [provided by RefSeq, Jan 2016]

**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 <u>techsupport@origene.com</u>. If you need a special design or shRNA sequence, please utilize our custom shRNA service.



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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. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).