

## Product datasheet for **TR506657**

### Setd4 Mouse shRNA Plasmid (Locus ID 224440)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Setd4 Mouse shRNA Plasmid (Locus ID 224440)
Locus ID:	224440
Synonyms:	AY037804; C21orf18; ORF21
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Setd4 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 224440). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC029101</a> , <a href="#">NM_145482</a> , <a href="#">NM_145482.1</a> , <a href="#">NM_145482.2</a> , <a href="#">NM_145482.3</a>
UniProt ID:	<a href="#">P58467</a>
Summary:	Histone-lysine N-methyltransferase that acts as a regulator of cell proliferation, cell differentiation and inflammatory response (PubMed:31376731, PubMed:31794893, PubMed:33506343). Regulates the inflammatory response by mediating mono- and dimethylation of 'Lys-4' of histone H3 (H3K4me1 and H3K4me2, respectively), leading to activate the transcription of proinflammatory cytokines IL6 and TNF-alpha (PubMed:31376731). Also involved in the regulation of stem cell quiescence by catalyzing the trimethylation of 'Lys-20' of histone H4 (H4K20me3), thereby promoting heterochromatin formation (By similarity). Involved in proliferation, migration, paracrine and myogenic differentiation of bone marrow mesenchymal stem cells (BMSCs) (PubMed:33506343). [UniProtKB/Swiss-Prot Function]
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).