

Product datasheet for **TR505694**

Kdm3a Mouse shRNA Plasmid (Locus ID 104263)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Kdm3a Mouse shRNA Plasmid (Locus ID 104263)
Locus ID:	104263
Synonyms:	1700105C21Rik; C230043E16Rik; JHDM2a; Jmjd1; Jmjd1a; KDM2A; TGSA; Tsga
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Kdm3a - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 104263). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	BC059264 , NM_001038695 , NM_173001 , NM_001038695.1 , NM_001038695.2 , NM_001038695.3 , NM_173001.1 , NM_173001.2 , NM_173001.3 , BC005725 , BC026605 , BC031158 , BC031200 , BC031909 , BC032256 , BC049876 , NM_001362200 , NM_001362201
UniProt ID:	Q6PCM1
Summary:	Histone demethylase that specifically demethylates 'Lys-9' of histone H3, thereby playing a central role in histone code. Preferentially demethylates mono- and dimethylated H3 'Lys-9' residue, with a preference for dimethylated residue, while it has weak or no activity on trimethylated H3 'Lys-9'. Demethylation of Lys residue generates formaldehyde and succinate. Involved in hormone-dependent transcriptional activation, by participating in recruitment to androgen-receptor target genes, resulting in H3 'Lys-9' demethylation and transcriptional activation (By similarity). Involved in spermatogenesis by regulating expression of target genes such as PRM1 and TNP1 which are required for packaging and condensation of sperm chromatin (PubMed:17943087). Involved in obesity resistance through regulation of metabolic genes such as PPARA and UCP1.[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 techsupport@origene.com . 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).