

## Product datasheet for **TR311462**

### KMT2A Human shRNA Plasmid Kit (Locus ID 4297)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	KMT2A Human shRNA Plasmid Kit (Locus ID 4297)
Locus ID:	4297
Synonyms:	ALL-1; CXXC7; HRX; HTRX1; MLL; MLL1; MLL1A; TRX1; WDSTS
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	KMT2A - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 4297). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001197104</a> , <a href="#">NM_005933</a> , <a href="#">NM_005933.1</a> , <a href="#">NM_005933.2</a> , <a href="#">NM_005933.3</a> , <a href="#">NM_001197104.1</a> , <a href="#">BC015388</a> , <a href="#">BC039603</a> , <a href="#">BC065385</a> , <a href="#">BC090876</a> , <a href="#">NM_001197104.2</a> , <a href="#">NM_005933.4</a>
UniProt ID:	<a href="#">Q03164</a>
Summary:	This gene encodes a transcriptional coactivator that plays an essential role in regulating gene expression during early development and hematopoiesis. The encoded protein contains multiple conserved functional domains. One of these domains, the SET domain, is responsible for its histone H3 lysine 4 (H3K4) methyltransferase activity which mediates chromatin modifications associated with epigenetic transcriptional activation. This protein is processed by the enzyme Taspase 1 into two fragments, MLL-C and MLL-N. These fragments reassociate and further assemble into different multiprotein complexes that regulate the transcription of specific target genes, including many of the HOX genes. Multiple chromosomal translocations involving this gene are the cause of certain acute lymphoid leukemias and acute myeloid leukemias. Alternate splicing results in multiple transcript variants.[provided by RefSeq, Oct 2010]
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).