

## Product datasheet for **TR513431**

### Mkl1 Mouse shRNA Plasmid (Locus ID 223701)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Mkl1 Mouse shRNA Plasmid (Locus ID 223701)
Locus ID:	223701
Synonyms:	AMKL; Bsac; Mal; Mrtf-A
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Mkl1 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 223701). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC050941</a> , <a href="#">NM_001082536</a> , <a href="#">NM_153049</a> , <a href="#">NM_001082536.1</a> , <a href="#">NM_153049.1</a> , <a href="#">NM_153049.2</a> , <a href="#">NM_153049.3</a> , <a href="#">BC054801</a>
UniProt ID:	<a href="#">Q8K4J6</a>
Summary:	Transcription coactivator that associates with the serum response factor (SRF) transcription factor to control expression of genes regulating the cytoskeleton during development, morphogenesis and cell migration (PubMed:12019265, PubMed:12732141, PubMed:17588931, PubMed:19350017, PubMed:24732378). The SRF-MRTFA complex activity responds to Rho GTPase-induced changes in cellular globular actin (G-actin) concentration, thereby coupling cytoskeletal gene expression to cytoskeletal dynamics (PubMed:24732378). MRTFA binds G-actin via its RPEL repeats, regulating activity of the MRTFA-SRF complex (PubMed:12732141, PubMed:17588931). Activity is also regulated by filamentous actin (F-actin) in the nucleus (PubMed:23558171, PubMed:25759381).[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).