

## Product datasheet for **TR307142**

### SMCR7L (MIEF1) Human shRNA Plasmid Kit (Locus ID 54471)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	SMCR7L (MIEF1) Human shRNA Plasmid Kit (Locus ID 54471)
Locus ID:	54471
Synonyms:	AltMIEF1; dj1104E15.3; HSU79252; MID51; MIEF1-MP; SMCR7L
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	MIEF1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 54471). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001304564</a> , <a href="#">NM_019008</a> , <a href="#">NR_130789</a> , <a href="#">NR_130790</a> , <a href="#">NM_019008.1</a> , <a href="#">NM_019008.2</a> , <a href="#">NM_019008.3</a> , <a href="#">NM_019008.4</a> , <a href="#">NM_019008.5</a> , <a href="#">BC008327</a> , <a href="#">BC008327.1</a> , <a href="#">BC002587</a> , <a href="#">BC002861</a> , <a href="#">BC009958</a> , <a href="#">BC032530</a> , <a href="#">BC047292</a> , <a href="#">BC054037</a>
UniProt ID:	<a href="#">Q9NQG6</a>
Summary:	Mitochondrial outer membrane protein which regulates mitochondrial fission. Promotes the recruitment and association of the fission mediator dynamin-related protein 1 (DNM1L) to the mitochondrial surface independently of the mitochondrial fission FIS1 and MFF proteins. Regulates DNM1L GTPase activity and DNM1L oligomerization. Binds ADP and can also bind GDP, although with lower affinity. Does not bind CDP, UDP, ATP, AMP or GTP. Inhibits DNM1L GTPase activity in the absence of bound ADP. Requires ADP to stimulate DNM1L GTPase activity and the assembly of DNM1L into long, oligomeric tubules with a spiral pattern, as opposed to the ring-like DNM1L oligomers observed in the absence of bound ADP. Does not require ADP for its function in recruiting DNM1L.[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).