

Product datasheet for **TL509669**

Sirt3 Mouse shRNA Plasmid (Locus ID 64384)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Sirt3 Mouse shRNA Plasmid (Locus ID 64384)
Locus ID:	64384
Synonyms:	2310003L23Rik; AI848213; Sir2I3
Vector:	pGFP-C-shLenti (TR30023)
E. coli Selection:	Chloramphenicol (34 ug/ml)
Mammalian Cell Selection:	Puromycin
Format:	Lentiviral plasmids
Components:	Sirt3 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 64384). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.
RefSeq:	BC025878 , NM_001127351 , NM_001177804 , NM_022433 , NM_001127351.1 , NM_022433.1 , NM_022433.2 , NM_001177804.1
UniProt ID:	Q8R104
Summary:	NAD-dependent protein deacetylase (PubMed:23835326, PubMed:17923681, PubMed:18794531, PubMed:21172655). Activates or deactivates mitochondrial target proteins by deacetylating key lysine residues (PubMed:23835326, PubMed:17923681, PubMed:18794531, PubMed:21172655). Known targets include ACSS1, IDH, GDH, PDHA1, SOD2, LCAD, SDHA and the ATP synthase subunit ATP5PO (PubMed:16790548, PubMed:18794531, PubMed:21172655). Contributes to the regulation of the cellular energy metabolism (PubMed:23835326). Important for regulating tissue-specific ATP levels (PubMed:18794531, PubMed:24252090). In response to metabolic stress, deacetylates transcription factor FOXO3 and recruits FOXO3 and mitochondrial RNA polymerase POLRMT to mtDNA to promote mtDNA transcription (PubMed:23283301).[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).