

## Product datasheet for **TL511900**

### Sirt6 Mouse shRNA Plasmid (Locus ID 50721)

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | shRNA Plasmids  |
| Product Name:             | Sirt6 Mouse shRNA Plasmid (Locus ID 50721)  |
| Locus ID:                 | 50721   |
| Synonyms:                 | 2810449N18Rik; AI043036; Sir2l6   |
| Vector:                   | pGFP-C-shLenti (TR30023)  |
| E. coli Selection:        | Chloramphenicol (34 ug/ml)  |
| Mammalian Cell Selection: | Puromycin   |
| Format:                   | Lentiviral plasmids   |
| Components:               | Sirt6 - Mouse, 4 unique 29mer shRNA constructs in lentiviral GFP vector(Gene ID = 50721).<br>5µg purified plasmid DNA per construct<br>29-mer scrambled shRNA cassette in pGFP-C-shLenti Vector, TR30021, included for free.  |
| RefSeq:                   | <a href="#">BC052763</a> , <a href="#">NM_001163430</a> , <a href="#">NM_181586</a> , <a href="#">NM_181586.1</a> , <a href="#">NM_181586.2</a> , <a href="#">NM_181586.3</a> ,<br><a href="#">NM_001163430.1</a> , <a href="#">NM_001163430.2</a> , <a href="#">NM_181586.4</a>  |
| UniProt ID:               | <a href="#">P59941</a>  |
| Summary:                  | NAD-dependent protein deacetylase. Has deacetylase activity towards histone H3K9Ac and H3K56Ac. Modulates acetylation of histone H3 in telomeric chromatin during the S-phase of the cell cycle. Deacetylates histone H3K9Ac at NF-kappa-B target promoters and may down-regulate the expression of a subset of NF-kappa-B target genes. Deacetylation of nucleosomes interferes with RELA binding to target DNA. May be required for the association of WRN with telomeres during S-phase and for normal telomere maintenance. On DNA damage, promotes DNA end resection via deacetylation of RBBP8. Has very weak deacetylase activity and can bind NAD(+) in the absence of acetylated substrate (By similarity). Acts as a corepressor of the transcription factor Hif1a to control the expression of multiple glycolytic genes to regulate glucose homeostasis. Required for genomic stability. Required for normal IGF1 serum levels and normal glucose homeostasis. Modulates cellular senescence and apoptosis. Regulates the production of TNF protein. Has a role in the regulation of life span in male mice, but not in female mice.[UniProtKB/Swiss-Prot Function] |



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- 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](mailto:techsupport@origene.com). If you need a special design or shRNA sequence, please utilize our [custom shRNA service](#).
- 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).