

## Product datasheet for **TR501447**

### Ndufa2 Mouse shRNA Plasmid (Locus ID 17991)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	Ndufa2 Mouse shRNA Plasmid (Locus ID 17991)
Locus ID:	17991
Synonyms:	AV000592; B8; C1-B8; CI-B8
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Ndufa2 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 17991). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">BC006815</a> , <a href="#">NM_010885</a> , <a href="#">NM_010885.1</a> , <a href="#">NM_010885.2</a> , <a href="#">NM_010885.3</a> , <a href="#">NM_010885.4</a> , <a href="#">NM_010885.5</a>
UniProt ID:	<a href="#">Q9CQ75</a>
Summary:	This gene encodes a subunit of the NADH-ubiquinone oxidoreductase (complex I) enzyme, which is a large, multimeric protein. It is the first enzyme complex in the mitochondrial electron transport chain and catalyzes the transfer of electrons from NADH to the electron acceptor ubiquinone. The proton gradient created by electron transfer drives the conversion of ADP to ATP. The human ortholog of this gene has been characterized, and its structure and redox potential is reported to be similar to that of thioredoxins. It may be involved in regulating complex I activity or assembly via assistance in redox processes. In humans, mutations in this gene are associated with Leigh syndrome, an early-onset progressive neurodegenerative disorder. A pseudogene of this gene is located on chromosome 5. [provided by RefSeq, May 2013]
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).