

## Product datasheet for **TR302572**

### AIF (AIFM1) Human shRNA Plasmid Kit (Locus ID 9131)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	AIF (AIFM1) Human shRNA Plasmid Kit (Locus ID 9131)
Locus ID:	9131
Synonyms:	AIF; AUNX1; CMT2D; CMTX4; COWCK; COXPD6; DFNX5; NADMR; NAMSD; PDCD8; SEMDHL
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	AIFM1 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 9131). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	<a href="#">NM_001130846</a> , <a href="#">NM_001130847</a> , <a href="#">NM_004208</a> , <a href="#">NM_145812</a> , <a href="#">NM_145813</a> , <a href="#">NR_132647</a> , <a href="#">NM_145812.1</a> , <a href="#">NM_145812.2</a> , <a href="#">NM_145813.1</a> , <a href="#">NM_145813.2</a> , <a href="#">NM_004208.1</a> , <a href="#">NM_004208.2</a> , <a href="#">NM_004208.3</a> , <a href="#">NM_001130846.1</a> , <a href="#">NM_001130846.2</a> , <a href="#">NM_001130846.3</a> , <a href="#">NM_001130847.1</a> , <a href="#">NM_001130847.2</a> , <a href="#">NM_001130847.3</a> , <a href="#">BC111065</a> , <a href="#">BC111065.1</a> , <a href="#">BC139738</a> , <a href="#">BM807180</a> , <a href="#">NM_004208.4</a>
UniProt ID:	<a href="#">O95831</a>
Summary:	This gene encodes a flavoprotein essential for nuclear disassembly in apoptotic cells, and it is found in the mitochondrial intermembrane space in healthy cells. Induction of apoptosis results in the translocation of this protein to the nucleus where it affects chromosome condensation and fragmentation. In addition, this gene product induces mitochondria to release the apoptogenic proteins cytochrome c and caspase-9. Mutations in this gene cause combined oxidative phosphorylation deficiency 6 (COXPD6), a severe mitochondrial encephalomyopathy, as well as Cowchock syndrome, also known as X-linked recessive Charcot-Marie-Tooth disease-4 (CMTX-4), a disorder resulting in neuropathy, and axonal and motor-sensory defects with deafness and cognitive disability. Alternative splicing results in multiple transcript variants. A related pseudogene has been identified on chromosome 10. [provided by RefSeq, Aug 2015]



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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).