

Product datasheet for TG506067

Mfn2 Mouse shRNA Plasmid (Locus ID 170731)

Product data:

Product Type: shRNA Plasmids

Product Name: Mfn2 Mouse shRNA Plasmid (Locus ID 170731)

Locus ID: 170731

Synonyms: D630023P19Rik; Fzo Vector: pGFP-V-RS (TR30007)

E. coli Selection: Kanamycin

Mammalian Cell

Selection:

Puromycin

Format: Retroviral plasmids

Components: Mfn2 - Mouse, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 170731).

5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.

RefSeq: BC046503, NM 001285920, NM 001285921, NM 001285922, NM 001285923, NM 133201,

NM 133201.1, NM 133201.2, NM 133201.3, NM 001285920.1, NM 001285921.1,

NM 001285922.1, NM 001285923.1, NM 001355590, NM 001355591

UniProt ID: Q80U63

Summary: Mitochondrial outer membrane GTPase that mediates mitochondrial clustering and fusion

(PubMed:12527753, PubMed:23921378, PubMed:23620051). Mitochondria are highly dynamic organelles, and their morphology is determined by the equilibrium between mitochondrial fusion and fission events. Overexpression induces the formation of mitochondrial networks. Membrane clustering requires GTPase activity and may involve a

similarity). Involved in the clearance of damaged mitochondria via selective autophagy

major rearrangement of the coiled coil domains (By similarity). Plays a central role in mitochondrial metabolism and may be associated with obesity and/or apoptosis processes. Plays an important role in the regulation of vascular smooth muscle cell proliferation (By

(mitophagy). Is required for PRKN recruitment to dysfunctional mitochondria

(PubMed:23620051). Involved in the control of unfolded protein response (UPR) upon ER stress including activation of apoptosis and autophagy during ER stress (PubMed:23921556). Acts as an upstream regulator of EIF2AK3 and suppresses EIF2AK3 activation under basal

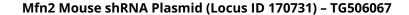
conditions (PubMed:23921556).[UniProtKB/Swiss-Prot Function]



OriGene Technologies, Inc. 9620 Medical Center Drive, Ste 200

CN: techsupport@origene.cn

Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com





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.

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).