FIS1 siRNA – Mitochondrial Fission 1 Protein Isoform 2 (Mouse)

PRODUCT OVERVIEW

Product Name	FIS1, siRNA
Full Product Name	FIS1 siRNA (Mouse)
Product Gene Name	FIS1 sirna
Product Synonym Names	TTC11; Mitochondrial fission 1 protein; FIS1 homolog; Tetratricopeptide repeat protein 11; TPR repeat protein 11
Host	Synthetic
Species Reactivity	Mouse
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	FIS1 siRNA (Mouse) is a target-specific 19-23 nt siRNA oligo duplexes designed to knock down gene expression.
Preparation and Storage	Shipped at 4 degree C. Store at -20 degree C for one year.
Molecular Weight	17,009 Da
3D Structure	ModBase 3D Structure for Q9CQ92
Negative Control	siRNA Negative Control (Catalog# MBS8241404) is a non-targeting 21 nt siRNA recommended as a negative control for experiments using targeted siRNA transfection.
Quality Control	Oligonucleotide synthesis is monitored base by base through trityl analysis to ensure appropriate coupling efficiency. The oligo is subsequently purified by affinity-solid phase extraction. The annealed RNA duplex is further analyzed by mass spectrometry to verify the exact composition of the duplex. Each lot is compared to the previous lot by mass spectrometry to ensure maximum lot-to-lot consistency.
Directions for Use	We recommends transfection with 100 nM siRNA 48 to 72 hours prior to cell lysis. Before resuspending, briefly centrifuge the tube to ensure the lyophilized siRNA is at the bottom of the tube. Resuspend the siRNA oligos to an appropriate concentration with DEPC water. For each vial, suitable for 250 transfections in 24 well plate (20 pmol for each well).
Components	We offer pre-designed sets of 3 different target-specific siRNA oligo duplexes of mouse FIS1 gene. Each vial contains 5 nmol of lyophilized siRNA. The duplexes can be transfected individually or pooled together to achieve knockdown of the target gene, which is most commonly assessed by qPCR or western blot. Our siRNA oligos are also chemically modified (2'-OMe) at no extra charge for increased stability and enhanced knockdown in vitro and in vivo.
Applications Tested/Suitable for FIS1 sirna	RNA Interference (RNAi)
Related Product Information for FIS1 sirna	MBS8227940 is an siRNA targeting FIS1. Also known as FIS1 siRNA (Mouse). Reactive in Mouse. Host: Synthetic. siRNA to inhibit FIS1 expression using RNA interference
Other Notes	Small volumes of FIS1 sirna vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FIS1. It may not necessarily be applicable to this product.

NCBI GI #	253735731

NCBI GeneID	66437
NCBI Accession #	NP_001156715.1
UniProt Primary Accession #	Q9CQ92
UniProt Related Accession #	Q9CQ92
GenBank Nucleotide #	NM_001163243.1
NCBI Official Full Name	mitochondrial fission 1 protein isoform 2
NCBI Official Synonym Full Names	fission 1 (mitochondrial outer membrane) homolog (yeast)
NCBI Official Symbol	Fis1
NCBI Official Synonym Symbols	Ttc11; 2010003O14Rik
UniProt Protein Name	Mitochondrial fission 1 protein
UniProt Synonym Protein Names	FIS1 homolog; Tetratricopeptide repeat protein 11; TPR repeat protein 11
Protein Family	Mitochondria fission 1 protein
UniProt Gene Name	Fis1
UniProt Synonym Gene Names	Ttc11; TPR repeat protein 11
UniProt Entry Name	FIS1_MOUSE
NCBI Protein Information	mitochondrial fission 1 protein
UniProt Comments for FIS1	FIS1: Promotes the fragmentation of the mitochondrial network and its perinuclear clustering. Can induce cytochrome c release from the mitochondrion to the cytosol, ultimately leading to apoptosis. Also mediates peroxisomal fission. Belongs to the FIS1 family. Protein type: Mitochondrial; Membrane protein, integral Cellular Component: integral to peroxisomal membrane; mitochondrial outer membrane; protein complex; membrane; mitochondrion; endoplasmic reticulum; integral to membrane; peroxisome; cytosol; integral to mitochondrial outer membrane Molecular Function: receptor binding Biological Process: peroxisome fission; mitochondrial fission; release of cytochrome c from mitochondria; elevation of cytosolic calcium ion concentration; mitochondrial fusion; apoptosis; reduction of endoplasmic reticulum calcium ion concentration; mitochondrion degradation; positive regulation of caspase activity; mitochondrial fragmentation during apoptosis; protein targeting to mitochondrion; protein homooligomerization; elevation of mitochondrial calcium ion concentration
Research Articles on FIS1	**1.** MiD49 and MiD51 can act independently of Mff and Fis1 in Drp1 recruitment and suggest that they provide specificity to the division of mitochondria.
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