NDUFS3 siRNA – NADH Dehydrogenase (Human)

PRODUCT OVERVIEW

Product Name	NDUFS3, siRNA
Full Product Name	NDUFS3 siRNA (Human)
Product Gene Name	NDUFS3 sirna
Product Synonym Names	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3 mitochondrial; Complex I-30kD; CI-30kD; NADH-ubiquinone oxidoreductase 30 kDa subunit
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	NDUFS3 siRNA (Human) 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	14,679 Da
OMIM	603846
3D Structure	ModBase 3D Structure for O75489
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 human NDUFS3 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 NDUFS3 sirna	RNA Interference (RNAi)
Related Product Information for NDUFS3 sirna	MBS8229360 is an siRNA targeting NDUFS3. Also known as NDUFS3 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit NDUFS3 expression using RNA interference
Other Notes	Small volumes of NDUFS3 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 NDUFS3. It may not necessarily be applicable to this product.

NCBI GI #	4758788
NCBI GeneID	4722
NCBI Accession #	NP_004542.1
UniProt Primary Accession #	O75489
UniProt Secondary Accession #	Q9UNQ8; B2R9J1; B4DFM8
UniProt Related Accession #	O75489
GenBank Nucleotide #	NM_004551.2
NCBI Official Full Name	NADH dehydrogenase
NCBI Official Synonym Full Names	NADH dehydrogenase (ubiquinone) Fe-S protein 3, 30kDa (NADH-coenzyme Q reductase)
NCBI Official Symbol	NDUFS3
NCBI Official Synonym Symbols	CI-30
UniProt Protein Name	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial
UniProt Synonym Protein Names	Complex I-30kD; CI-30kD; NADH-ubiquinone oxidoreductase 30 kDa subunit
UniProt Gene Name	NDUFS3
UniProt Synonym Gene Names	CI-30kD
UniProt Entry Name	NDUS3_HUMAN
NCBI Protein Information	NADH dehydrogenase [ubiquinone] iron-sulfur protein 3, mitochondrial
NCBI Summary for NDUFS3	This gene encodes one of the iron-sulfur protein (IP) components of mitochondrial NADH:ubiquinone oxidoreductase (complex I). Mutations in this gene are associated with Leigh syndrome resulting from mitochondrial complex I deficiency.[provided by RefSeq, Apr 2009]
UniProt Comments for NDUFS3	NDUFS3: Core subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I) that is believed to belong to the minimal assembly required for catalysis. Complex I functions in the transfer of electrons from NADH to the respiratory chain. The immediate electron acceptor for the enzyme is believed to be ubiquinone. Belongs to the complex I 30 kDa subunit family. Protein type: Mitochondrial; Energy Metabolism - oxidative phosphorylation; EC 1.6.5.3; EC 1.6.99.3; Oxidoreductase Chromosomal Location of Human Ortholog: 11p11.11 Cellular Component: mitochondrion; mitochondrial membrane; mitochondrial inner membrane; mitochondrial respiratory chain complex I; nucleus Molecular Function: protein binding; NADH dehydrogenase (ubiquinone) activity; electron carrier activity; NADH dehydrogenase activity Biological Process: cellular metabolic process; substantia nigra development; mitochondrial electron transport, NADH to ubiquinone; negative regulation of cell growth Disease: Leigh Syndrome; Mitochondrial Complex I Deficiency
Research Articles on NDUFS3	**1.** pH stability of w-t and Leigh syndrome mutant varied at extreme acidic pH. the molten globule like structure of w-t at pH1 was absent in case of the mutant protein. Both the w-t and mutant proteins showed multi-step thermal and Gdn-HCl induced unfolding
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.

Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/human-sirna/ndufs3/8229360