NDUFA2 siRNA – NADH Dehydrogenase (Human)

PRODUCT OVERVIEW

Product Name	NDUFA2, siRNA
Full Product Name	NDUFA2 siRNA (Human)
Product Gene Name	NDUFA2 sirna
Product Synonym Names	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 2; Complex I-B8; CI-B8; NADH-ubiquinone oxidoreductase B8 subunit
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	NDUFA2 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	8,491 Da
OMIM	602137
3D Structure	ModBase 3D Structure for O43678
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 NDUFA2 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 NDUFA2 sirna	RNA Interference (RNAi)
Related Product Information for NDUFA2 sirna	MBS828923 is an siRNA targeting NDUFA2. Also known as NDUFA2 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit NDUFA2 expression using RNA interference
Other Notes	Small volumes of NDUFA2 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 NDUFA2. It may not necessarily be applicable to this product.

NCBI GI #	297206774
NCBI GeneID	4695
NCBI Accession #	NP_001171941.1
UniProt Primary Accession #	O43678
UniProt Secondary Accession #	Q6IAY8; D6RJD6
UniProt Related Accession #	O43678
GenBank Nucleotide #	NM_001185012.1
NCBI Official Full Name	NADH dehydrogenase
NCBI Official Synonym Full Names	NADH dehydrogenase (ubiquinone) 1 alpha subcomplex, 2, 8kDa
NCBI Official Symbol	NDUFA2
NCBI Official Synonym Symbols	B8; CD14; CIB8
UniProt Protein Name	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 2
UniProt Synonym Protein Names	Complex I-B8; CI-B8; NADH-ubiquinone oxidoreductase B8 subunit
UniProt Gene Name	NDUFA2
UniProt Synonym Gene Names	CI-B8
UniProt Entry Name	NDUA2_HUMAN
NCBI Protein Information	NADH dehydrogenase [ubiquinone] 1 alpha subcomplex subunit 2
NCBI Summary for NDUFA2	The encoded protein is a subunit of the hydrophobic protein fraction of the NADH:ubiquinone oxidoreductase (complex 1), the first enzyme complex in the electron transport chain located in the inner mitochondrial membrane, and may be involved in regulating complex I activity or its assembly via assistance in redox processes. Mutations in this gene are associated with Leigh syndrome, an early-onset progressive neurodegenerative disorder. Alternative splicing results in multiple transcript variants.[provided by RefSeq, May 2010]
UniProt Comments for NDUFA2	NDUFA2: Accessory subunit of the mitochondrial membrane respiratory chain NADH dehydrogenase (Complex I), that is believed not to be involved in 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. Protein type: EC 1.6.99.3; Oxidoreductase; Energy Metabolism - oxidative phosphorylation; Mitochondrial; EC 1.6.5.3 Chromosomal Location of Human Ortholog: 5q31.2 Cellular Component: mitochondrial inner membrane; mitochondrial membrane; mitochondrial respiratory chain complex I Molecular Function: NADH dehydrogenase (ubiquinone) activity Biological Process: cellular metabolic process; mitochondrial electron transport, NADH to ubiquinone Disease: Leigh Syndrome
Research Articles on NDUFA2	**1.** Observational study of gene-disease association. (HuGE Navigator)
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/ndufa2/828923