NADSYN1 siRNA – Glutamine-Dependent NAD(+) Synthetase (Human)

PRODUCT OVERVIEW

Product Name	NADSYN1, siRNA
Full Product Name	NADSYN1 siRNA (Human)
Product Gene Name	NADSYN1 sirna
Product Synonym Names	Glutamine-dependent NAD(+) synthetase; NAD(+) synthase [glutamine-hydrolyzing]; NAD(+) synthetase
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	NADSYN1 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	49,718 Da
OMIM	608285
3D Structure	ModBase 3D Structure for Q6IA69
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 NADSYN1 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 NADSYN1 sirna	RNA Interference (RNAi)
Related Product Information for NADSYN1 sirna	MBS8211317 is an siRNA targeting NADSYN1. Also known as NADSYN1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit NADSYN1 expression using RNA interference
Other Notes	Small volumes of NADSYN1 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 NADSYN1. It may not necessarily be applicable to this product.

NCBI GI #	41393551
NCBI GeneID	55191
NCBI Accession #	NP_060631.2
UniProt Primary Accession #	Q6IA69
UniProt Secondary Accession #	Q86SN2; Q9HA25; Q9NVM8; B3KUU4
UniProt Related Accession #	Q6IA69
GenBank Nucleotide #	NM_018161.4
NCBI Official Full Name	glutamine-dependent NAD(+) synthetase
NCBI Official Synonym Full Names	NAD synthetase 1
NCBI Official Symbol	NADSYN1
UniProt Protein Name	Glutamine-dependent NAD(+) synthetase
UniProt Synonym Protein Names	NAD(+) synthase [glutamine-hydrolyzing]; NAD(+) synthetase
Protein Family	Glutamine-dependent NAD(+) synthetase
UniProt Gene Name	NADSYN1
UniProt Entry Name	NADE_HUMAN
NCBI Protein Information	glutamine-dependent NAD(+) synthetase
NCBI Summary for NADSYN1	Nicotinamide adenine dinucleotide (NAD) is a coenzyme in metabolic redox reactions, a precursor for several cell signaling molecules, and a substrate for protein posttranslational modifications. NAD synthetase (EC 6.3.5.1) catalyzes the final step in the biosynthesis of NAD from nicotinic acid adenine dinucleotide (NaAD).[supplied by OMIM, Apr 2004]
UniProt Comments for NADSYN1	NADSYN1: Homohexamer. Protein type: Ligase; EC 6.3.5.1; Cofactor and Vitamin Metabolism - nicotinate and nicotinamide Chromosomal Location of Human Ortholog: 11q13.4 Cellular Component: cytoplasm; cytosol Molecular Function: hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds; NAD+ synthase (glutamine-hydrolyzing) activity; ATP binding Biological Process: NAD biosynthetic process; vitamin metabolic process; NAD metabolic process; water-soluble vitamin metabolic process
Research Articles on NADSYN1	**1.** NADSYN1/DHCR7 locus (rs12785878 and rs1790349) polymorphisms have an effect on plasma 25-hydroxyvitamin D levels and coronary artery disease incidence
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