NF1 siRNA – Neurofibromin Isoform 2 (Human)

PRODUCT OVERVIEW

Product Name	NF1, siRNA
Full Product Name	NF1 siRNA (Human)
Product Gene Name	NF1 sirna
Product Synonym Names	Neurofibromin; Neurofibromatosis-related protein NF-1
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	NF1 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	318,992 Da
OMIM	114500
3D Structure	ModBase 3D Structure for P21359
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 NF1 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 NF1 sirna	RNA Interference (RNAi)
Related Product Information for NF1 sirna	MBS8204968 is an siRNA targeting NF1. Also known as NF1 siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit NF1 expression using RNA interference
Other Notes	Small volumes of NF1 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 NF1. It may not necessarily be applicable to this product.

NCBI GI #	4557793
NCBI GeneID	4763
NCBI Accession #	NP_000258.1
UniProt Primary Accession #	P21359
UniProt Secondary Accession #	O00662; Q14284; Q14930; Q14931; Q9UMK3
UniProt Related Accession #	P21359
GenBank Nucleotide #	NM_000267.3
NCBI Official Full Name	neurofibromin isoform 2
NCBI Official Synonym Full Names	neurofibromin 1
NCBI Official Symbol	NF1
NCBI Official Synonym Symbols	WSS; NFNS; VRNF
UniProt Protein Name	Neurofibromin
UniProt Synonym Protein Names	Neurofibromatosis-related protein NF-1
Protein Family	Neurofibromin
UniProt Gene Name	NF1
UniProt Entry Name	NF1_HUMAN
NCBI Protein Information	neurofibromin
NCBI Summary for NF1	This gene product appears to function as a negative regulator of the ras signal transduction pathway. Mutations in this gene have been linked to neurofibromatosis type 1, juvenile myelomonocytic leukemia and Watson syndrome. The mRNA for this gene is subject to RNA editing (CGA>UGA->Arg1306Term) resulting in premature translation termination. Alternatively spliced transcript variants encoding different isoforms have also been described for this gene. [provided by RefSeq, Jul 2008]

UniProt Comments for NF1	NF1: a Ras-GAP, highly expressed in developing neural cells. Possesses tumor suppressor activity, presumably by virtue of its GTPase activating domain. Neurofibromin is phosphorylated in response to EGF in CNS cells and cell lines. Defects in NF1 are the cause of type 1 neurofibromatosis (NF1), Watson syndrome, and familial spinal neurofibromatosis. NF1 is one of the most frequent autosomal dominant diseases. Four alternatively spliced isoforms have been described. Protein type: Nucleolus; Tumor suppressor; Motility/polarity/chemotaxis; GAPs, Ras; GAPs Chromosomal Location of Human Ortholog: 17q11.2 Cellular Component: membrane; axon; dendrite; cytoplasm; nucleolus; nucleus Molecular Function: protein binding; phosphatidylethanolamine binding; phosphatidylcholine binding Biological Process: negative regulation of Rac protein signal transduction; neural tube development; negative regulation of MAP kinase activity; Schwann cell development; extracellular matrix organization and biogenesis; collagen fibril organization; positive regulation of apoptosis; heart development; negative regulation of transcription factor import into nucleus; negative regulation of neuroblast proliferation; regulation of glial cell differentiation; positive regulation of adenylate cyclase activity; negative regulation of neurotransmitter secretion; skeletal muscle development; adrenal gland development; negative regulation of cell-matrix adhesion; forebrain morphogenesis; regulation of synaptic transmission, GABAergic; myelination in the peripheral nervous system; camera-type eye morphogenesis; induction of apoptosis via death domain receptors; negative regulation of fibroblast proliferation; negative regulation of endothelial cell proliferation; negative regulation of protein kinase activity; positive regulation of endothelial cell proliferation; cerebral cortex development; actin cytoskeleton organization and biogenesis; forebrain astrocyte development; metanephros development; regulation of long-term neuronal synaptic plasticity; negative regulation of osteoclast differentiation; phosphoinositide 3-kinase cascade; wound healing; regulation of cell-matrix adhesion; regulation of blood vessel endothelial cell migration; smooth muscle development; sympathetic nervous system development; positive regulation of neuron apoptosis; visual learning; negative regulation of Ras protein signal transduction; cell communication; negative regulation of cell migration; regulation of bone resorption; negative regulation of MAPKKK cascade; MAPKKK cascade; liver development; regulation of angiogenesis; peripheral nervous system development; negative regulation of oligodendrocyte differentiation; osteoblast differentiation; negative regulation of angiogenesis; pigmentation; spinal cord development; Ras protein signal transduction; negative regulation of astrocyte differentiation; response to hypoxia; artery morphogenesis; brain development; cognition Disease: Neurofibromatosis, Familial Spinal; Watson Syndrome; Juvenile Myelomonocytic Leukemia; Neurofibromatosis, Type I; Neurofibromatosis-noonan Syndrome
Research Articles on NF1	**1.** Human primary biliary cirrhosis-susceptible allele of rs4979462 enhances TNFSF15 expression by binding NF-1.
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.