STRC siRNA – Stereocilin (Human)

PRODUCT OVERVIEW

Product Name	STRC, siRNA
Full Product Name	STRC siRNA (Human)
Product Gene Name	STRC sirna
Product Synonym Names	Stereocilin
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	STRC 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	192,967 Da
OMIM	603720
3D Structure	ModBase 3D Structure for Q7RTU9
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 STRC 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 STRC sirna	RNA Interference (RNAi)
Related Product Information for STRC sirna	MBS8236865 is an siRNA targeting STRC. Also known as STRC siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit STRC expression using RNA interference
Other Notes	Small volumes of STRC 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 STRC. It may not necessarily be applicable to this product.

NCBI GI #	24308527
NCBI GeneID	161497
NCBI Accession #	NP_714544.1
UniProt Primary Accession #	Q7RTU9
UniProt Related Accession #	Q7RTU9
GenBank Nucleotide #	NM_153700.2
NCBI Official Full Name	stereocilin
NCBI Official Synonym Full Names	stereocilin
NCBI Official Symbol	STRC
NCBI Official Synonym Symbols	DFNB16
UniProt Protein Name	Stereocilin
Protein Family	Stereocilin
UniProt Gene Name	STRC
UniProt Entry Name	STRC_HUMAN
NCBI Protein Information	stereocilin
NCBI Summary for STRC	This gene encodes a protein that is associated with the hair bundle of the sensory hair cells in the inner ear. The hair bundle is composed of stiff microvilli called stereocilia and is involved with mechanoreception of sound waves. This gene is part of a tandem duplication on chromosome 15; the second copy is a pseudogene. Mutations in this gene cause autosomal recessive non-syndromic deafness. [provided by RefSeq, Jul 2008]
UniProt Comments for STRC	STRC: Essential to the formation of horizontal top connectors between outer hair cell stereocilia. Defects in STRC are the cause of deafness autosomal recessive type 16 (DFNB16). DFNB16 is a form of sensorineural hearing loss. Sensorineural deafness results from damage to the neural receptors of the inner ear, the nerve pathways to the brain, or the area of the brain that receives sound information. Defects in STRC are a cause of deafness-infertility syndrome (DIS). DIS is characterized by deafness and infertility and is caused by large contiguous gene deletions at 15q15.3 that removes both STRC and CATSPER2 genes. Belongs to the stereocilin family. Chromosomal Location of Human Ortholog: 15q15.3 Cellular Component: stereocilium; cell surface; stereocilium bundle tip Biological Process: auditory receptor cell stereocilium organization and biogenesis; detection of mechanical stimulus involved in sensory perception of sound Disease: Deafness, Autosomal Recessive 16; Deafness, Sensorineural, And Male Infertility; Spermatogenic Failure 7
Research Articles on STRC	**1.** STRC is a major contributor to DFNB16 congenital hearing impairment.
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.
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