NSDHL siRNA – Sterol-4-Alpha-Carboxylate 3-Dehydrogenase, Decarboxylating (Human)

PRODUCT OVERVIEW

Product Name	NSDHL, siRNA
Full Product Name	NSDHL siRNA (Human)
Product Gene Name	NSDHL sirna
Product Synonym Names	H105E3; Sterol-4-alpha-carboxylate 3-dehydrogenase. decarboxylating; Protein H105e3
Host	Synthetic
Species Reactivity	Human
Form/Format	Lyophilized powder
Purity/Purification	> 97%
Specificity	NSDHL 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	41,900 Da
OMIM	300275
3D Structure	ModBase 3D Structure for Q15738
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 NSDHL 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 NSDHL sirna	RNA Interference (RNAi)
Related Product Information for NSDHL sirna	MBS8200947 is an siRNA targeting NSDHL. Also known as NSDHL siRNA (Human). Reactive in Human. Host: Synthetic. siRNA to inhibit NSDHL expression using RNA interference
Other Notes	Small volumes of NSDHL 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 NSDHL. It may not necessarily be applicable to this product.

NCBI GI #	193211614
NCBI GeneID	50814
NCBI Accession #	NP_001123237.1
UniProt Primary Accession #	Q15738
UniProt Secondary Accession #	O00344; D3DWT6
UniProt Related Accession #	Q15738
GenBank Nucleotide #	NM_001129765.1
NCBI Official Full Name	sterol-4-alpha-carboxylate 3-dehydrogenase, decarboxylating
NCBI Official Synonym Full Names	NAD(P) dependent steroid dehydrogenase-like
NCBI Official Symbol	NSDHL
NCBI Official Synonym Symbols	H105E3; XAP104; SDR31E1
UniProt Protein Name	Sterol-4-alpha-carboxylate 3-dehydrogenase, decarboxylating
UniProt Synonym Protein Names	Protein H105e3
UniProt Gene Name	NSDHL
UniProt Synonym Gene Names	H105E3
UniProt Entry Name	NSDHL_HUMAN
NCBI Protein Information	sterol-4-alpha-carboxylate 3-dehydrogenase, decarboxylating
NCBI Summary for NSDHL	The protein encoded by this gene is localized in the endoplasmic reticulum and is involved in cholesterol biosynthesis. Mutations in this gene are associated with CHILD syndrome, which is a X-linked dominant disorder of lipid metabolism with disturbed cholesterol biosynthesis, and typically lethal in males. Alternatively spliced transcript variants with differing 5' UTR have been found for this gene. [provided by RefSeq, Jul 2008]
UniProt Comments for NSDHL	NSDHL: Defects in NSDHL are the cause of congenital hemidysplasia with ichthyosiform erythroderma and limb defects (CHILD). CHILD is an X-linked dominant disorder of lipid metabolism with disturbed cholesterol biosynthesis, which typically results in male lethality. Clinically, it is characterized by congenital, unilateral, ichthyosisform erythroderma with striking lateralization, sharp midline demarcation, and ipsilateral limb defects and hypoplasia of the body. Limbs defects range from hypoplasia of digits or ribs to complete amelia, often including scoliosis. Defects in NSDHL are the cause of CK syndrome (CKS). CKS is a disorder characterized by mild to severe cognitive impairment, seizures, microcephaly, cerebral cortical malformations, dysmorphic facial features, and thin body habitus. Belongs to the 3-beta-HSD family. Protein type: Lipid Metabolism - steroid biosynthesis; Membrane protein, integral; Endoplasmic reticulum; EC 1.1.1.170; Oxidoreductase Chromosomal Location of Human Ortholog: Xq28 Cellular Component: endoplasmic reticulum membrane; intracellular membrane-bound organelle; endoplasmic reticulum; integral to membrane; lipid particle Molecular Function: 3-beta-hydroxy-delta5-steroid dehydrogenase activity; sterol-4-alpha-carboxylate 3-dehydrogenase (decarboxylating) activity Biological Process: smoothened signaling pathway; hair follicle development; cholesterol biosynthetic process Disease: Congenital Hemidysplasia With Ichthyosiform Erythroderma And Limb Defects; Ck Syndrome
Research Articles on NSDHL	**1.** human NSDHL protein and mouse Nsdhl mRNA were expressed in tissues synthesizing cholesterol and steroids and in all peripheral tissues affected by CHILD or CK syndromes.

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