

NHS siRNA (h): sc-91342

BACKGROUND

NHS (Nance-Horan syndrome protein), also known as congenital cataracts and dental anomalies protein, is a 1,630 amino acid nuclear protein that is implicated in regulation of tooth, brain, eye and craniofacial development. Expressed at low levels in a variety of tissues, NHS belongs to the NHS family and exists as three alternatively spliced isoforms. The gene encoding NHS maps to human chromosome Xp22.13, and when defective, causes Nance-Horan syndrome (NHS) and cataract congenital X-linked (CXN). Nance-Horan syndrome is a rare disorder characterized by dental anomalies, cataracts, dysmorphic features, and occasionally mental retardation. CXN is an X-linked form of cataracts in which males are affected more severely than females.

REFERENCES

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PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: NHS (human) mapping to Xp22.13.

PRODUCT

NHS siRNA (h) is a pool of 3 target-specific 19-25 nt siRNAs designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see NHS shRNA Plasmid (h): sc-91342-SH and NHS shRNA (h) Lentiviral Particles: sc-91342-V as alternate gene silencing products.

For independent verification of NHS (h) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-91342A, sc-91342B and sc-91342C.

STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20° C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20° C, avoid contact with RNAses and repeated freeze thaw cycles.

Resuspend lyophilized siRNA duplex in 330 μ l of the RNase-free water provided. Resuspension of the siRNA duplex in 330 μ l of RNase-free water makes a 10 μ M solution in a 10 μ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

NHS siRNA (h) is recommended for the inhibition of NHS expression in human cells.

SUPPORT REAGENTS

For optimal siRNA transfection efficiency, Santa Cruz Biotechnology's siRNA Transfection Reagent: sc-29528 (0.3 ml), siRNA Transfection Medium: sc-36868 (20 ml) and siRNA Dilution Buffer: sc-29527 (1.5 ml) are recommended. Control siRNAs or Fluorescein Conjugated Control siRNAs are available as 10 μ M in 66 μ l. Each contain a scrambled sequence that will not lead to the specific degradation of any known cellular mRNA. Fluorescein Conjugated Control siRNAs include: sc-36869, sc-44239, sc-44240 and sc-44241. Control siRNAs include: sc-37007, sc-44230, sc-44231, sc-44232, sc-44233, sc-44234, sc-44235, sc-44236, sc-44237 and sc-44238.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor NHS gene expression knockdown using RT-PCR Primer: NHS (h)-PR: sc-91342-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.