SANTA CRUZ BIOTECHNOLOGY, INC.

HYDIN siRNA (h): sc-93504

BACKGROUND

HYDIN (hydrocephalus inducing homolog), also known as HYDIN1 or HYDIN2, is a 5,120 amino acid protein that exists as seven alternatively spliced isoforms. Expressed in the ciliated ependymal cell layer of heart ventricle, HYDIN is also found in ciliated epithelial cells of developing spermatocytes, oviduct and bronchi. The HYDIN gene maps to human chromosome 16q22.2 and is considered a candidate for an autosomal recessive form of congenital hydrocephalus. Human chromosome 16 encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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5. Doggett, N.A., Xie, G., Meincke, L.J., Sutherland, R.D., Mundt, M.O., Berbari, N.S., Davy, B.E., Robinson, M.L., Rudd, M.K., Weber, J.L., Stallings, R.L. and Han, C. 2006. A 360-kb interchromosomal duplication of the human HYDIN locus. Genomics 88: 762-771.
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CHROMOSOMAL LOCATION

Genetic locus: HYDIN (human) mapping to 16q22.2.

PRODUCT

HYDIN siRNA (h) is a pool of 2 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HYDIN shRNA Plasmid (h): sc-93504-SH and HYDIN shRNA (h) Lentiviral Particles: sc-93504-V as alternate gene silencing products.

For independent verification of HYDIN (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-93504A and sc-93504B.

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 µl of the RNAse-free water provided. Resuspension of the siRNA duplex in 330 µl of RNAse-free water makes a 10 µM solution in a 10 µM Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

APPLICATIONS

HYDIN siRNA (h) is recommended for the inhibition of HYDIN 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 µM in 66 µl. 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 HYDIN gene expression knockdown using RT-PCR Primer: HYDIN (h)-PR: sc-93504-PR (20 µl). 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.

PROTOCOLS

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