SANTA CRUZ BIOTECHNOLOGY, INC.

HIATL1 siRNA (h): sc-92683

BACKGROUND

The major facilitator superfamily consists of presumed carbohydrate transporters with 10-12 membrane-spanning domains. Belonging to the facilitator superfamily, HIAT1 is a multi-pass membrane protein that may function as a sugar transporter and is expressed in adult and embryonic brain. The HIAT1 gene was first observed while analyzing for active genes in neonatal mouse hipposcampus. HIATL1 (Hippocampus abundant transcript-like protein 1) is a 506 amino acid multi-pass membrane protein that also belongs to the major facilitator superfamily. The gene encoding HIATL1 maps to human chromosome 9q22.32, which consists of about 145 million bases and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of Bcr-Abl fusion protein often found in leukemias.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HIATL1 (human) mapping to 9q22.32.

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.

PRODUCT

HIATL1 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 µM solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see HIATL1 shRNA Plasmid (h): sc-92683-SH and HIATL1 shRNA (h) Lentiviral Particles: sc-92683-V as alternate gene silencing products.

For independent verification of HIATL1 (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-92683A, sc-92683B and sc-92683C.

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

HIATL1 siRNA (h) is recommended for the inhibition of HIATL1 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 HIATL1 gene expression knockdown using RT-PCR Primer: HIATL1 (h)-PR: sc-92683-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.