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GnT-IVH siRNA (m): sc-145665

BACKGROUND

GnT-IVH, also known as HGNT-IV-H or MGAT4C (mannosyl (α -1,3-)-glycoprotein β -1,4-N-acetylglucosaminyltransferase, isozyme C), is a 478 amino acid single-pass type II membrane protein that localizes to the Golgi apparatus and belongs to the glycosyltransferase 54 family. Expressed in liver, heart, testis, brain and adrenal gland, GnT-IVH functions as a glycosyltransferase that catalyzes the transfer of N-acetylglucosamine (GlcNAc) to the core mannose residues of N-linked glycans, thereby playing a crucial role in the production of tri- and tetra-antennary N-linked sugar chains. The gene encoding GnT-IVH maps to human chromosome 12, which encodes over 1,100 genes and comprises approximately 4.5% of the human genome.

REFERENCES

1. Papandreou, M.J. and Fenouillet, E. 1997. Effect of various glycosidase treatments on the resistance of the HIV-1 envelope to degradation. *FEBS Lett.* 406: 191-195.
2. Furukawa, T., Youssef, E.M., Yatsuoka, T., Yokoyama, T., Makino, N., Inoue, H., Fukushima, S., Hoshi, M., Hayashi, Y., Sunamura, M. and Horii, A. 1999. Cloning and characterization of the human UDP-N-acetylglucosamine: α -1,3-D-mannoside β -1,4-N-acetylglucosaminyltransferase IV-homologue (hGnT-IV-H) gene. *J. Hum. Genet.* 44: 397-401.
3. Sakamoto, Y., Taguchi, T., Honke, K., Korekane, H., Watanabe, H., Tano, Y., Dohmae, N., Takio, K., Horii, A. and Taniguchi, N. 2000. Molecular cloning and expression of cDNA encoding chicken UDP-N-acetyl-D-glucosamine (GlcNAc): GlcNAc β 1-6(GlcNAc β 1-2)-Man α 1-R[GlcNAc to Man] β 1,4N-acetylglucosaminyltransferase VI. *J. Biol. Chem.* 275: 36029-36034.
4. Zhang, W., Betel, D. and Schachter, H. 2002. Cloning and expression of a novel UDP-GlcNAc: α -D-mannoside β 1,2-N-acetylglucosaminyltransferase homologous to UDP-GlcNAc: α -3-D-mannoside β 1,2-N-acetylglucosaminyltransferase I. *Biochem. J.* 361: 153-162.
5. Schachter, H. 2002. The role of the GlcNAc β 1,2Man α -moiety in mammalian development. Null mutations of the genes encoding UDP-N-acetylglucosamine: α -3-D-mannoside β -1,2-N-acetylglucosaminyltransferase I and UDP-N-acetylglucosamine: α -D-mannoside β 1,2-N-acetylglucosaminyltransferase I.2 cause embryonic lethality and congenital muscular dystrophy in mice and men, respectively. *Biochim. Biophys. Acta* 1573: 292-300.
6. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607385. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: *Mgat4c* (mouse) mapping to 10 D1.

PRODUCT

GnT-IVH siRNA (m) is a target-specific 19-25 nt siRNA 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 GnT-IVH shRNA Plasmid (m): sc-145665-SH and GnT-IVH shRNA (m) Lentiviral Particles: sc-145665-V as alternate gene silencing products.

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

GnT-IVH siRNA (m) is recommended for the inhibition of GnT-IVH expression in mouse 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 GnT-IVH gene expression knockdown using RT-PCR Primer: GnT-IVH (m)-PR: sc-145665-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.

PROTOCOLS

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