SANTA CRUZ BIOTECHNOLOGY, INC.

GnT-VB siRNA (m): sc-145666

BACKGROUND

GnT-VB (GlcNAc-T Vb), also known as MGAT5B (mannosyl (α-1,6-)-glycoprotein β-1,6-N-acetyl-glucosaminyltransferase, isozyme B), GNT-IX (N-acetylglucosaminyl-transferase IX) or α-1,6-mannosylglycoprotein 6-β-N-acetylglucosaminyltransferase B, is a 792 amino acid single-pass type II membrane protein that belongs to the glycosyltransferase 18 family. Localizing to Golgi apparatus membrane, GnT-VB is predominantly expressed in brain with lower levels found in testis, spleen and thymus. GnT-VB participates in the protein glycosylation pathway and functions in the synthesis of complex cell surface N- and O-mannosyl glycans. GnT-VB also plays an important role in regulating integrin and laminin-dependent adhesion. The gene encoding GnT-VB produces five isoforms due to alternative splicing and maps to human chromosome 17q25.2 and mouse chromosome 11 E2.

REFERENCES

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6. Zody, M.C., et al. 2006. DNA sequence of human chromosome 17 and analysis of rearrangement in the human lineage. Nature 440: 1045-1049.
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CHROMOSOMAL LOCATION

Genetic locus: Mgat5b (mouse) mapping to 11 E2.

PROTOCOLS

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

PRODUCT

GnT-VB siRNA (m) 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 GnT-VB shRNA Plasmid (m): sc-145666-SH and GnT-VB shRNA (m) Lentiviral Particles: sc-145666-V as alternate gene silencing products.

For independent verification of GnT-VB (m) gene silencing results, we also provide the individual siRNA duplex components. Each is available as 3.3 nmol of lyophilized siRNA. These include: sc-145666A, sc-145666B and sc-145666C.

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

GnT-VB siRNA (m) is recommended for the inhibition of GnT-VB 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 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 GnT-VB gene expression knockdown using RT-PCR Primer: GnT-VB (m)-PR: sc-145666-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.