SANTA CRUZ BIOTECHNOLOGY, INC.

GnT-II siRNA (h): sc-106777

BACKGROUND

GnT-II (mannosyl (α-1,6-)-glycoprotein β-1, 2-N-acetylgluco-saminyltransferase, GlcNAc-T II) is a golgi enzyme that catalyzes the conversion of oligomannose into complex N-glycans and plays an important role in dietary fat absorption. Human MGAT2 transcript is abundant in the small intestine, liver, stomach, kidney, colon and white adipose tissue. Mouse MGAT2 transcript is abundant in the small intestine.

REFERENCES

1. Tan, J., D'Agostaro, A.F., Bendiak, B., Reck, F., Sarkar, M., Squire, J.A., Leong, P. and Schachter, H. 1995. The human UDP-N-acetylglucosamine: α-6-D-mannoside-β-1,2- N-acetylglucosaminyltransferase II gene (MGAT2). Cloning of genomic DNA, localization to chromosome 14q21, expression in insect cells and purification of the recombinant protein. Eur. J. Biochem. 231: 317-328.
2. Cao, J., Lockwood, J., Burn, P. and Shi, Y. 2003. Cloning and functional characterization of a mouse intestinal acyl-CoA:monoacylglycerol acyltransferase, MGAT2. J. Biol. Chem. 278: 13860-13866.
3. Yen, C.L. and Farese, R.V. Jr. 2003. MGAT2, a monoacylglycerol acyltransferase expressed in the small intestine. J. Biol. Chem. 278: 18532-18537.
4. LocusLink Report (LocusID: 4247). http://www.ncbi.nlm.nih.gov/LocusLink/

CHROMOSOMAL LOCATION

Genetic locus: MGAT2 (human) mapping to 14q21.3.

PRODUCT

GnT-II 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 GnT-II shRNA Plasmid (h): sc-106777-SH and GnT-II shRNA (h) Lentiviral Particles: sc-106777-V as alternate gene silencing products.

For independent verification of GnT-II (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-106777A, sc-106777B and sc-106777C.

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.

PROTOCOLS

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

APPLICATIONS

GnT-II siRNA (h) is recommended for the inhibition of GnT-II 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 GnT-II gene expression knockdown using RT-PCR Primer: GnT-II (h)-PR: sc-106777-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.