SANTA CRUZ BIOTECHNOLOGY, INC.

GBGT1 siRNA (h): sc-92644

BACKGROUND

GBGT1 (globoside α-1,3-N-acetylgalactosaminyltransferase 1), also known as UNQ2513/PRO6002, is a 347 amino acid single-pass type II membrane protein that belongs to the glycosyltransferase 6 family. Localizing to the golgi apparatus membrane, GBGT1 is widely expressed, with high levels found in placenta, ovary and peripheral blood leukocyte, and lower levels expressed in liver, thymus and testis. GBGT1 utilizes manganese as a cofactor, and assists in the addition of N-acetylgalactosamine (GalNAc) in α-1,3-linkage to various substrates, resulting in the formation of glycolipids. Glycolipids are present in most eukaryotic cells and may assist in the adherence of certain pathogens. Existing as two alternatively spliced isoforms, the gene encoding GBGT1 maps to human chromosome 9q34.2 and mouse chromosome 2 A3.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GBGT1 (human) mapping to 9q34.2.

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

GBGT1 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 GBGT1 shRNA Plasmid (h): sc-92644-SH and GBGT1 shRNA (h) Lentiviral Particles: sc-92644-V as alternate gene silencing products.

For independent verification of GBGT1 (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-92644A and sc-92644B.

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

GBGT1 siRNA (h) is recommended for the inhibition of GBGT1 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 GBGT1 gene expression knockdown using RT-PCR Primer: GBGT1 (h)-PR: sc-92644-PR (20 µl). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.