

GCNT4 siRNA (h): sc-91629

BACKGROUND

Belonging to the glycosyltransferase 14 family, GCNT4 (glucosaminyl (N-acetyl) transferase 4, core 2), also known as C2GNT3 (core 2-branching enzyme 3) or β -1,3-galactosyl-O-glycosyl-glycoprotein β -1,6-N-acetylglucosaminyltransferase 4, is a 453 amino acid single-pass type II membrane protein that localizes to Golgi apparatus and functions as a glycosyltransferase. Other members of the glycosyltransferase 14 family include GCNT1, GCNT2, GCNT3, GCNT5, GCNT6 and GCNT7. Expressed primarily in thymus, GCNT4 is also found at low levels in stomach, pancreas, small intestine, placenta and peripheral blood leukocytes. The gene encoding GCNT4 maps to human chromosome 5, which contains 181 million base pairs and comprises nearly 6% of the human genome. Deletion of the p arm of chromosome 5 leads to Cri du chat syndrome, while deletion of the q arm of chromosome 5 altogether is common in therapy-related acute myelogenous leukemias and myelodysplastic syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GCNT4 (human) mapping to 5q13.3.

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

GCNT4 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 μ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GCNT4 shRNA Plasmid (h): sc-91629-SH and GCNT4 shRNA (h) Lentiviral Particles: sc-91629-V as alternate gene silencing products.

For independent verification of GCNT4 (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-91629A, sc-91629B and sc-91629C.

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

GCNT4 siRNA (h) is recommended for the inhibition of GCNT4 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 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 GCNT4 gene expression knockdown using RT-PCR Primer: GCNT4 (h)-PR: sc-91629-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.