SANTA CRUZ BIOTECHNOLOGY, INC.

GLCE siRNA (m): sc-145418

BACKGROUND

GLCE (glucuronic acid epimerase), also known as HSEPI (heparin/heparan sulfate:glucuronic acid C5-epimerase) or D-glucuronyl C5-epimerase, is a single-pass type II membrane protein that is part of the Golgi apparatus and, through its enzymatic activity, is essential for proper biological function of heparan sulphate (HS). GLCE epimerizes D-glucuronic acid into L-iduronic acid of HS, thus changing the specificity of HS and allowing it to bind to cytokines and growth factors. GLCE is a target of the β-catenin/TCF4 transactivation complex, an essential component in the Wnt/APC/β-catenin signaling pathway that is up-regulated in colon carcinoma cells. The enzymatic activity of GLCE is enhanced by overexpression of β-catenin/TCF4, suggesting a possible role for GLCE in the dysregulation of proper signaling pathways; a dysregulation that leads to the development of human epithelial tumors.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Glce (mouse) mapping to 9 B.

PROTOCOLS

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

PRODUCT

GLCE 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 GLCE shRNA Plasmid (m): sc-145418-SH and GLCE shRNA (m) Lentiviral Particles: sc-145418-V as alternate gene silencing products.

For independent verification of GLCE (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-145418A, sc-145418B and sc-145418C.

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

GLCE siRNA (m) is recommended for the inhibition of GLCE 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 GLCE gene expression knockdown using RT-PCR Primer: GLCE (m)-PR: sc-145418-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.