



glypican-6 siRNA (h): sc-75152

BACKGROUND

The glypicans are a family of glycosylphosphatidylinositol-anchored heparan sulfate proteoglycans that are involved in the control of cell growth and division. Glypican-6, also known as GPC6, is a 555 amino acid protein that exists as both a lipid-anchored cell membrane peptide, as well as a secreted protein that is released into the extracellular space. Expressed ubiquitously with highest expression in liver, kidney, colon, ovary and small intestine, glypican-6 functions as a cell surface receptor that is thought to bind to a variety of proteins, including growth factors, proteases and extracellular matrix proteins. The gene encoding glypican-6 maps to human chromosome 13q31.3, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome.

REFERENCES

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6. Bassett, J.H., Swinhoe, R., Chassande, O., Samarut, J. and Williams, G.R. 2006. Thyroid hormone regulates heparan sulfate proteoglycan expression in the growth plate. *Endocrinology* 147: 295-305.
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CHROMOSOMAL LOCATION

Genetic locus: GPC6 (human) mapping to 13q31.3.

PRODUCT

glypican-6 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 glypican-6 shRNA Plasmid (h): sc-75152-SH and glypican-6 shRNA (h) Lentiviral Particles: sc-75152-V as alternate gene silencing products.

For independent verification of glypican-6 (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-75152A, sc-75152B and sc-75152C.

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

glypican-6 siRNA (h) is recommended for the inhibition of glypican-6 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 glypican-6 gene expression knockdown using RT-PCR Primer: glypican-6 (h)-PR: sc-75152-PR (20 μ l). 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.

PROTOCOLS

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