

GPRC5C siRNA (h): sc-75196

BACKGROUND

G protein-coupled receptors (GPRs), also known as seven transmembrane receptors, heptahelical receptors or 7TM receptors, comprise a superfamily of proteins that play a role in many different stimulus-response pathways. G protein-coupled receptors translate extracellular signals into intracellular signals (G protein activation) and they respond to a variety of signaling molecules, such as hormones and neurotransmitters. GPRC5C (G protein-coupled receptor, family C, group 5, member C), also known as RAIG3, is a 441 amino acid multi-pass membrane protein that localizes to cytoplasmic vesicles and belongs to the G protein-coupled receptor family. Expressed at high levels in stomach, liver, prostate, kidney and pancreas, GPRC5C is thought to function as a retinoic acid-inducible GPR that may play a role in signaling events throughout the cell. GPRC5C is subject to DNA damage-dependent phosphorylation, probably by Atm or ATR.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GPRC5C (human) mapping to 17q25.1.

PRODUCT

GPRC5C 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 GPRC5C shRNA Plasmid (h): sc-75196-SH and GPRC5C shRNA (h) Lentiviral Particles: sc-75196-V as alternate gene silencing products.

For independent verification of GPRC5C (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-75196A, sc-75196B and sc-75196C.

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

GPRC5C siRNA (h) is recommended for the inhibition of GPRC5C 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 GPRC5C gene expression knockdown using RT-PCR Primer: GPRC5C (h)-PR: sc-75196-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.