

SCGN siRNA (h): sc-95181

BACKGROUND

SCGN, also known as Secretagogen, CALBL, setagin or SECRET, is a 276 amino acid cytoplasmic protein that contains six EF-hand domains and is related to the calcium-binding proteins Calretinin and Calbindin D28K. Expressed in a variety of tissues including stomach, thyroid, colon, brain and neuroendocrine cells, SCGN is thought to be involved in cell proliferation and KCl (potassium chloride)-mediated calcium flux events. Through its interaction with KCl and its subsequent ability to modulate calcium storage pools within the cell, SCGN may function to negatively control growth and differentiation rates and, thus, indirectly inhibit cell replication.

REFERENCES

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2. Gartner, W., et al. 2001. Cerebral expression and serum detectability of secretagogen, a recently cloned EF-hand Ca^{2+} -binding protein. *Cereb. Cortex.* 11: 1161-1169.
3. Birkenkamp-Demtröder, K., et al. 2005. Secretagogen is a novel marker for neuroendocrine differentiation. *Neuroendocrinology* 82: 121-138.
4. Skovhus, K.V., et al. 2006. Identification and characterization of secretagogen promoter activity. *Scand. J. Immunol.* 64: 639-645.
5. Gartner, W., et al. 2007. New functional aspects of the neuroendocrine marker secretagogen based on the characterization of its rat homolog. *Am. J. Physiol. Endocrinol. Metab.* 293: E347-E354.
6. Pipp, I., et al. 2007. Secretagogen expression in tumours of the human brain and its coverings. *APMIS* 115: 319-326.
7. Adolf, K., et al. 2007. Secretagogen is a new neuroendocrine marker in the human prostate. *Prostate* 67: 472-484.
8. Rogstam, A., et al. 2007. Binding of calcium ions and SNAP-25 to the hexa EF-hand protein secretagogen. *Biochem. J.* 401: 353-363.

CHROMOSOMAL LOCATION

Genetic locus: SCGN (human) mapping to 6p22.2.

PRODUCT

SCGN 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 SCGN shRNA Plasmid (h): sc-95181-SH and SCGN shRNA (h) Lentiviral Particles: sc-95181-V as alternate gene silencing products.

For independent verification of SCGN (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-95181A, sc-95181B and sc-95181C.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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

SCGN siRNA (h) is recommended for the inhibition of SCGN 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.

GENE EXPRESSION MONITORING

SCGN (F-9): sc-374355 is recommended as a control antibody for monitoring of SCGN gene expression knockdown by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) or immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

RT-PCR REAGENTS

Semi-quantitative RT-PCR may be performed to monitor SCGN gene expression knockdown using RT-PCR Primer: SCGN (h)-PR: sc-95181-PR (20 μ l). Annealing temperature for the primers should be 55-60° C and the extension temperature should be 68-72° C.

PROTOCOLS

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