

golgin 160 siRNA (h): sc-75160

BACKGROUND

The Golgi apparatus consists of a series of stacked, flattened membrane stacks called cisternae that are involved in the transport of lipids and proteins in the secretory pathway and are important for golgi-microtubule interaction. Golgin 160, also known as GOLGA3 (golgin subfamily A member 3), MEA-2 or GCP170, is a 1,498 amino acid protein that localizes to both the cytoplasm and to the Golgi apparatus and contains a series of coiled-coil domains. Expressed in a variety of tissues, including heart, liver, testis, kidney, lung and salivary gland, golgin 160 functions as a homodimer that interacts with GOLGA7 and is thought to be involved in maintaining golgi structure and may play a role in nuclear transport and golgi apparatus localization. Multiple isoforms of golgin 160 exist due to alternative splicing events.

REFERENCES

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3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602581. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Ohta, E., et al. 2003. Identification and characterization of GCP16, a novel acylated Golgi protein that interacts with GCP170. *J. Biol. Chem.* 278: 51957-51967.
5. Hicks, S.W., et al. 2005. Isoform-specific interaction of golgin-160 with the Golgi-associated protein PIST. *J. Biol. Chem.* 280: 28944-28951.
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CHROMOSOMAL LOCATION

Genetic locus: GOLGA3 (human) mapping to 12q24.33.

PRODUCT

golgin 160 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 golgin 160 shRNA Plasmid (h): sc-75160-SH and golgin 160 shRNA (h) Lentiviral Particles: sc-75160-V as alternate gene silencing products.

For independent verification of golgin 160 (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-75160A, sc-75160B and sc-75160C.

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

golgin 160 siRNA (h) is recommended for the inhibition of golgin 160 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

golgin 160 (C-8): sc-374596 is recommended as a control antibody for monitoring of golgin 160 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 golgin 160 gene expression knockdown using RT-PCR Primer: golgin 160 (h)-PR: sc-75160-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.