SANTA CRUZ BIOTECHNOLOGY, INC.

golgin 245 siRNA (m): sc-145668

BACKGROUND

Golgin 245 is also known as p230, GCP2, GOLG or golgi autoantigen and is a 2,230 amino acid protein that is expressed as three isoforms. Golgin 245 is localized to the cytoplasm in cells and is a member of the golgin family, all of which are peripheral membrane proteins associated with the Golgi complex. Golgin 245 has a carboxyl-terminal GRIP domain, which attaches to the *trans*-Golgi network (TGN) and TGN-derived vesicles. It is thought that the interaction that takes place between golgin 245 and MACF1, which cross-links microtubules to the Actin cytoskeleton, allows proteins to be transported from the TGN to the cell periphery. Antibodies against golgin 245 are associated with two chronic disorders known as Sjögren's syndrome and Hepatitis B.

REFERENCES

1. Fritzler, M.J., et al. 1995. Molecular characterization of golgin 245, a novel Golgi complex protein containing a granin signature. J. Biol. Chem. 270: 31262-31268.
2. Cowan, D.A., et al. 2002. Characterization of mouse tGolgin-1 (golgin 245/*trans*-Golgi p230/256 kD golgin) and its upregulation during oligodendrocyte development. DNA Cell Biol. 21: 505-517.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602509. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Kakinuma, T., et al. 2004. Interaction between p230 and MACF1 is associated with transport of a glycosyl phosphatidyl inositol-anchored protein from the Golgi to the cell periphery. Exp. Cell Res. 298: 388-398.
5. Hicks, S.W. and Machamer, C.E. 2005. Isoform-specific interaction of golgin 160 with the Golgi-associated protein PIST. J. Biol. Chem. 280: 28944-28951.
6. Yoshino, A., et al. 2005. tGolgin-1 (p230, golgin 245) modulates Shiga-toxin transport to the Golgi and Golgi motility towards the microtubule-organizing centre. J. Cell Sci. 118: 2279-2293.
7. Bremond, A., et al. 2008. Regulation of HLA class I surface expression requires CD99 and p230/golgin 245 interaction. Blood 113: 347-357.

CHROMOSOMAL LOCATION

Genetic locus: Golga4 (mouse) mapping to 9 F3.

PRODUCT

golgin 245 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 golgin 245 shRNA Plasmid (m): sc-145668-SH and golgin 245 shRNA (m) Lentiviral Particles: sc-145668-V as alternate gene silencing products.

For independent verification of golgin 245 (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-145668A, sc-145668B and sc-145668C.

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

golgin 245 siRNA (m) is recommended for the inhibition of golgin 245 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 golgin 245 gene expression knockdown using RT-PCR Primer: golgin 245 (m)-PR: sc-145668-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.

PROTOCOLS

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