# GOLGA6L9 siRNA (h): sc-90226



The Power to Question

#### **BACKGROUND**

GOLGA6L9 (golgin subfamily A member 6-like protein 9) is a 432 amino acid protein belonging to the GOLGA6 family. Existing as two alternatively spliced isoforms, the gene encoding GOLGA6L9 maps to human chromosome 15q25.3. Containing more than 700 genes, chromosome 15 is made up of approximately 106 million base pairs and is about 3% of the human genome. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes in the 15q11-q13 region. In the case of Angelman syndrome, this loss is due to inactivity of the maternal 15q11-q13 encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, there is a partial or complete deletion of this region from the paternal copy of chromosome 15. Tay-Sachs disease is a lethal disorder associated with mutations of the HEXA gene, which is encoded by chromosome 15. Marfan syndrome is associated with chromosome 15 through the FBN1 gene.

## **REFERENCES**

- Gratacòs, M., Nadal, M., Martín-Santos, R., Pujana, M.A., Gago, J., Peral, B., Armengol, L., Ponsa, I., Miró, R., Bulbena, A. and Estivill, X. 2001. A polymorphic genomic duplication on human chromosome 15 is a susceptibility factor for panic and phobic disorders. Cell 106: 367-379.
- Ríos, R.M., Sanchís, A., Tassin, A.M., Fedriani, C. and Bornens, M. 2004. GMAP-210 recruits γ-Tubulin complexes to *cis*-Golgi membranes and is required for Golgi ribbon formation. Cell 118: 323-335.
- Ouchi, M., West, K., Crabb, J.W., Kinoshita, S. and Kamei, M. 2005. Proteomic analysis of vitreous from diabetic macular edema. Exp. Eye Res. 81: 176-182.
- 4. Barr, F.A. and Egerer, J. 2005. Golgi positioning: are we looking at the right MAP? J. Cell Biol. 168: 993-998.
- Zody, M.C., Garber, M., Sharpe, T., Young, S.K., Rowen, L., O'Neill, K., Whittaker, C.A., Kamal, M., Chang, J.L., Cuomo, C.A., Dewar, K., FitzGerald, M.G., Kodira, C.D., Madan, A., Qin, S., Yang, X., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. Nature 440: 671-675.
- Cachón-González, M.B., Wang, S.Z., Lynch, A., Ziegler, R., Cheng, S.H. and Cox, T.M. 2006. Effective gene therapy in an authentic model of Tay-Sachsrelated diseases. Proc. Natl. Acad. Sci. USA 103: 10373-10378.
- 7. Lalande, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. Cell. Mol. Life Sci. 64: 947-960.
- 8. Roberti, M.C., Surace, C., Digilio, M.C., D'Elia, G., Sirleto, P., Capolino, R., Lombardo, A., Tomaiuolo, A.C., Petrocchi, S. and Angioni, A. 2011. Complex chromosome rearrangements related 15q14 microdeletion plays a relevant role in phenotype expression and delineates a novel recurrent syndrome. Orphanet. J. Rare Dis. 6: 17.

## **PROTOCOLS**

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

#### **CHROMOSOMAL LOCATION**

Genetic locus: GOLGA6L9 (human) mapping to 15q25.2.

#### **PRODUCT**

GOLGA6L9 siRNA (h) is a target-specific 19-25 nt siRNA designed to knock down gene expression. Each vial contains 3.3 nmol of lyophilized siRNA, sufficient for a 10  $\mu$ M solution once resuspended using protocol below. Suitable for 50-100 transfections. Also see GOLGA6L9 shRNA Plasmid (h): sc-90226-SH and GOLGA6L9 shRNA (h) Lentiviral Particles: sc-90226-V as alternate gene silencing products.

## 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  $\mu$ l of the RNAse-free water provided. Resuspension of the siRNA duplex in 330  $\mu$ l of RNAse-free water makes a 10  $\mu$ M solution in a 10  $\mu$ M Tris-HCl, pH 8.0, 20 mM NaCl, 1 mM EDTA buffered solution.

#### **APPLICATIONS**

GOLGA6L9 siRNA (h) is recommended for the inhibition of GOLGA6L9 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 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 GOLGA6L9 gene expression knockdown using RT-PCR Primer: GOLGA6L9 (h)-PR: sc-90226-PR (20  $\mu$ 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.

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