# CCDC64B siRNA (h): sc-93551



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#### **BACKGROUND**

BICD1 (Bicaudal D homolog 1 (*Drosophila*)) colocalizes with Rab 6A on the *trans*-Golgi network and on cytoplasmic vesicles, and is known to recruit the dynein-dynactin motor complex to regulate coat complex coatomer protein I (COPI)-independent Golgi-to-endoplasmic reticulum vacuolar transport. Belonging to the BICDR family, CCDC64B (coiled-coil domain-containing protein 64B), also known as BICDR2 (Bicaudal D-related protein 2), is a 488 amino acid protein that interacts with Rab 13. There are two isoforms of CCDC64B that exist as a result of alternative splicing events. The gene encoding CCDC64B maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome.

# **REFERENCES**

- Matanis, T., Akhmanova, A., Wulf, P., Del Nery, E., Weide, T., Stepanova, T., Galjart, N., Grosveld, F., Goud, B., De Zeeuw, C.I., Barnekow, A. and Hoogenraad, C.C. 2002. Bicaudal-D regulates COPI-independent Golgi-ER transport by recruiting the dynein-dynactin motor complex. Nat. Cell Biol. 4: 986-992.
- Claussen, M. and Suter, B. 2005. BicD-dependent localization processes: from *Drosophilia* development to human cell biology. Ann. Anat. 187: 539-553.
- Coutelis, J.B. and Ephrussi, A. 2007. Rab6 mediates membrane organization and determinant localization during *Drosophila* oogenesis. Development 134: 1419-1430
- Januschke, J., Nicolas, E., Compagnon, J., Formstecher, E., Goud, B. and Guichet, A. 2007. Rab6 and the secretory pathway affect oocyte polarity in *Drosophila*. Development 134: 3419-3425.
- Dienstbier, M. and Li, X. 2009. Bicaudal-D and its role in cargo sorting by microtubule-based motors. Biochem. Soc. Trans. 37: 1066-1071.
- Terenzio, M. and Schiavo, G. 2010. The more, the better: the BICD family gets bigger. EMBO J. 29: 1625-1626.
- Schlager, M.A., Kapitein, L.C., Grigoriev, I., Burzynski, G.M., Wulf, P.S., Keijzer, N., de Graaff, E., Fukuda, M., Shepherd, I.T., Akhmanova, A. and Hoogenraad, C.C. 2010. Pericentrosomal targeting of Rab6 secretory vesicles by Bicaudal-D-related protein 1 (BICDR-1) regulates neuritogenesis. EMBO J. 29: 1637-1651.
- 8. Swift, S., Xu, J., Trivedi, V., Austin, K.M., Tressel, S.L., Zhang, L., Covic, L. and Kuliopulos, A. 2010. A novel protease-activated receptor-1 interactor, Bicaudal D1, regulates G protein signaling and internalization. J. Biol. Chem. 285: 11402-11410.

# **CHROMOSOMAL LOCATION**

Genetic locus: CCDC64B (human) mapping to 16p13.3.

#### **PROTOCOLS**

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

### **PRODUCT**

CCDC64B 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 CCDC64B shRNA Plasmid (h): sc-93551-SH and CCDC64B shRNA (h) Lentiviral Particles: sc-93551-V as alternate gene silencing products.

# STORAGE AND RESUSPENSION

Store lyophilized siRNA duplex at -20 $^{\circ}$  C with desiccant. Stable for at least one year from the date of shipment. Once resuspended, store at -20 $^{\circ}$  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**

CCDC64B siRNA (h) is recommended for the inhibition of CCDC64B 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 CCDC64B gene expression knockdown using RT-PCR Primer: CCDC64B (h)-PR: sc-93551-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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