

# CCDC64B (E-18): sc-246178

## 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

1. Matanis, T., et al. 2002. Bicaudal-D regulates COPI-independent Golgi-ER transport by recruiting the dynein-dynactin motor complex. *Nat. Cell Biol.* 4: 986-992.
2. Claussen, M. and Suter, B. 2005. BicD-dependent localization processes: from *Drosophila* development to human cell biology. *Ann. Anat.* 187: 539-553.
3. Coutelis, J.B. and Ephrussi, A. 2007. Rab6 mediates membrane organization and determinant localization during *Drosophila* oogenesis. *Development* 134: 1419-1430.
4. Januschke, J., et al. 2007. Rab6 and the secretory pathway affect oocyte polarity in *Drosophila*. *Development* 134: 3419-3425.
5. Dienstbier, M. and Li, X. 2009. Bicaudal-D and its role in cargo sorting by microtubule-based motors. *Biochem. Soc. Trans.* 37: 1066-1071.
6. Terenzio, M. and Schiavo, G. 2010. The more, the better: the BICD family gets bigger. *EMBO J.* 29: 1625-1626.
7. Schlager, M.A., et al. 2010. Pericentrosomal targeting of Rab6 secretory vesicles by Bicaudal-D-related protein 1 (BICDR-1) regulates neurogenesis. *EMBO J.* 29: 1637-1651.
8. Swift, S., et al. 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.

## SOURCE

CCDC64B (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCDC64B of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-246178 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CCDC64B (E-18) is recommended for detection of CCDC64B of human and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with CCDC64.

CCDC64B (E-18) is also recommended for detection of CCDC64B in additional species, including porcine.

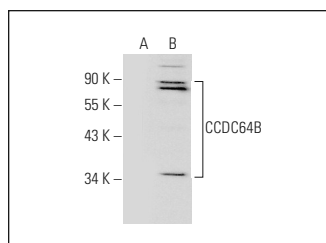
Suitable for use as control antibody for CCDC64B siRNA (h): sc-93551, CCDC64B shRNA Plasmid (h): sc-93551-SH and CCDC64B shRNA (h) Lentiviral Particles: sc-93551-V.

Molecular Weight of CCDC64B isoforms: 57/34 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CCDC64B (E-18): sc-246178. Western blot analysis of CCDC64B expression in non-transfected: sc-117752 (A) and mouse CCDC64B transfected: sc-119071 (B) 293T whole cell lysates.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.