

# CCDC64 (F-18): sc-246175

## 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, CCDC64, also known as Coiled-coil domain-containing protein 64A and BICDR1 (Bicaudal D-related protein 1), is a 488 amino acid protein that acts as a regulator of neurite outgrowth in developing neurons. Like BICD1, CCDC64 is a component of secretory vesicle machinery that regulates transport by controlling the accumulation of Rab6-containing secretory vesicles in the pericentrosomal region. This regulation inhibits neuriteogenesis by restricting anterograde secretory transport during the initial phase of neuronal differentiation.

## REFERENCES

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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.
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7. Schlager, M.A., et al. 2010. Pericentrosomal targeting of Rab6 secretory vesicles by Bicaudal-D-related protein 1 (BICDR-1) regulates neuriteogenesis. *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: CCDC64 (human) mapping to 12q24.23; Ccdc64 (mouse) mapping to 5 F.

## SOURCE

CCDC64 (F-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CCDC64 of human origin.

## STORAGE

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

## 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-246175 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CCDC64 (F-18) is recommended for detection of CCDC64 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 CCDC64B.

CCDC64 (F-18) is also recommended for detection of CCDC64 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CCDC64 siRNA (h): sc-96019, CCDC64 siRNA (m): sc-142130, CCDC64 shRNA Plasmid (h): sc-96019-SH, CCDC64 shRNA Plasmid (m): sc-142130-SH, CCDC64 shRNA (h) Lentiviral Particles: sc-96019-V and CCDC64 shRNA (m) Lentiviral Particles: sc-142130-V.

Molecular Weight of CCDC64: 55 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) 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.

## 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.