

CCDC141 Antibody

Catalog # ASC11346

#### Specification

# CCDC141 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, IHC, IF <u>O6ZP82</u> NP\_775919, 299829223 Human, Mouse Rabbit Polyclonal IgG CCDC141 antibody can be used for detection of CCDC141 by Western blot at 1 μg/mL. Antibody can also be used for immunohistochemistry starting at 5 μg/mL. For immunofluorescence start at 20 μg/mL.

## CCDC141 Antibody - Additional Information

Gene ID 285025 Target/Specificity CCDC141; At least four isoforms of CCDC141 are known to exist.

#### **Reconstitution & Storage**

CCDC141 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions** CCDC141 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## CCDC141 Antibody - Protein Information

Name CCDC141

Synonyms CAMDI {ECO:0000303|PubMed:20956536}

Function

Plays a critical role in cortical radial and GnRH neurons migration during brain development. Regulates cortical radial migration by negatively controlling the activity of histone deacetylase 6 (HDAC6) and promotes centrosome maturation. CAMDI is required for dilation formation of cortical neurons during radial migration. Plays a critical role in learning and memory performance through regulation of AMPA- selective glutamate receptors (AMPARs) cell surface expression in competition with KIBRA.

**Cellular Location** 



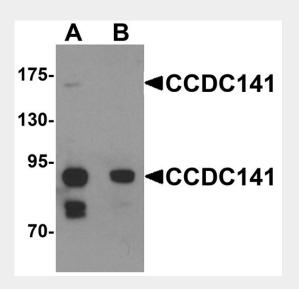
Cytoplasm {ECO:0000250|UniProtKB:E9Q8Q6}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome {ECO:0000250|UniProtKB:E9Q8Q6}. Note=Co-localized with DISC1 at/around the centrosome. Localizes to the centrosome, at least in part, in a DISC1-dependent manner. Accumulates and oscillates at the dilation in cortical neurons during migration. CAMDI protein level is stabilized at the G1 phase and destabilized at the G2 /M phase {ECO:0000250|UniProtKB:E9Q8Q6}

#### **CCDC141 Antibody - Protocols**

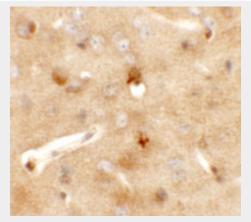
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

# CCDC141 Antibody - Images

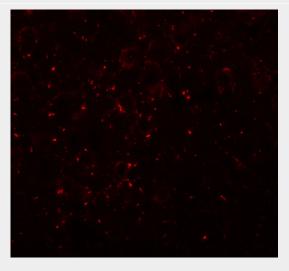


Western blot analysis of CCDC141 in SK-N-SH cell tissue lysate with CCDC141 antibody at 1  $\mu$ g/mL in (A) the absence and (B) the presence of blocking peptide





Immunohistochemistry of CCDC141 in mouse brain tissue with CCDC141 antibody at 5 µg/mL.



Immunofluorescence of CCDC141 in mouse brain tissue with CCDC141 antibody at 20 µg/mL.

## **CCDC141** Antibody - Background

CCDC141 Antibody: Coiled-coil domain-containing protein 141 (CCDC141), also known as CAMDI, is a recently identified disrupted in schizophrenia 1 (DISC1)-binding protein that also associates with myosin II. CCDC141 preferentially associates with phosphomyosin II and causes an accumulation of phosphomyosin II at the centrosome in a DISC1-dependent manner. Knockdown of CCDC141 expression by RNAi led to severely impaired radial migration with disoriented chromosomes, suggesting that CCDC141 is required for radial migration through DISC1 and myosin II-mediated centrosome positioning during neuronal development.

## **CCDC141 Antibody - References**

Fukuda T, Sugita S, Inatome R, et al. CAMDI, a novel disrupted in schizophrenia 1 (DISC1)-binding protein, is required for radial migration. J. Biol. Chem. 2010; 285:40554-61.