

CCDC141 Antibody

Catalog # ASC11346

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q6ZP82
Other Accession	NP_775919 , 299829223
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	175067
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CCDC141 antibody can be used for detection of CCDC141 by Western blot at 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	285025
Other Names	Coiled-coil domain-containing protein 141, Coiled-coil protein associated with myosin II and DISC1, CCDC141, CAMDI {ECO:0000303 PubMed:20956536}
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.

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 (AMPA-Rs) 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}

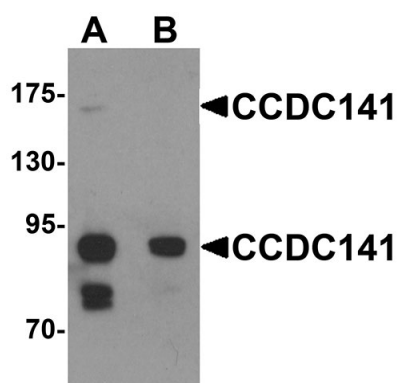
Background

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.

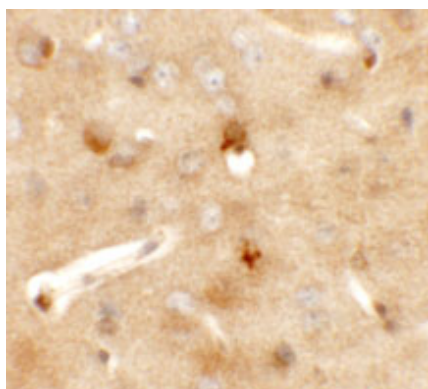
References

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.

Images

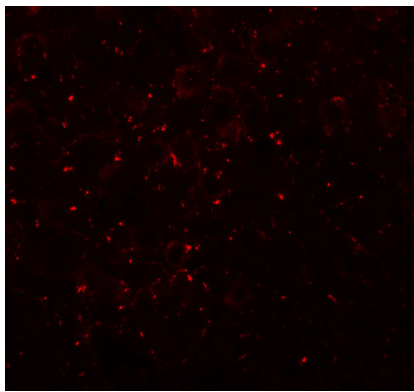


Western blot analysis of CCDC141 in SK-N-SH cell tissue lysate with CCDC141 antibody at 1 $\mu\text{g/mL}$ in (A) the absence and (B) the presence of blocking peptide



Immunohistochemistry of CCDC141 in mouse brain tissue with CCDC141 antibody at 5 $\mu\text{g/mL}$.

Immunofluorescence of CCDC141 in mouse brain tissue with CCDC141 antibody at 20 $\mu\text{g/mL}$.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.