

CCDC107 (E-12): sc-393846

BACKGROUND

CCDC107 (coiled-coil domain containing 107) is a 283 amino acid single-pass membrane protein that exists as four alternatively spliced isoforms. The gene encoding CCDC107 maps to human chromosome 9p13.3. Chromosome 9 consists of about 145 million bases, represents 4% of the human genome and encodes nearly 900 genes. Thought to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, is associated with the chromosome 9 gene encoding endoglin protein, ENG. Familial dysautonomia is also associated with chromosome 9 though through the gene IKBKAP. Notably, chromosome 9 encompasses the largest interferon family gene cluster. Chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of Bcr-Abl fusion protein often found in leukemias.

REFERENCES

1. Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. *Nature* 429: 369-374.
2. Coppo, P., et al. 2006. Bcr-Abl activates STAT3 via JAK and MEK pathways in human cells. *Br. J. Haematol.* 134: 171-179.
3. Zheng, X., et al. 2006. Bcr and its mutants, the reciprocal t(9;22)-associated Abl/Bcr fusion proteins, differentially regulate the cytoskeleton and cell motility. *BMC Cancer* 6: 262.

CHROMOSOMAL LOCATION

Genetic locus: CCDC107 (human) mapping to 9p13.3; Ccdc107 (mouse) mapping to 4 B1.

SOURCE

CCDC107 (E-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 197-224 near the C-terminus of CCDC107 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CCDC107 (E-12) is available conjugated to agarose (sc-393846 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393846 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393846 PE), fluorescein (sc-393846 FITC), Alexa Fluor® 488 (sc-393846 AF488), Alexa Fluor® 546 (sc-393846 AF546), Alexa Fluor® 594 (sc-393846 AF594) or Alexa Fluor® 647 (sc-393846 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393846 AF680) or Alexa Fluor® 790 (sc-393846 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393846 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

CCDC107 (E-12) is recommended for detection of CCDC107 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CCDC107 siRNA (h): sc-92657, CCDC107 siRNA (m): sc-142050, CCDC107 shRNA Plasmid (h): sc-92657-SH, CCDC107 shRNA Plasmid (m): sc-142050-SH, CCDC107 shRNA (h) Lentiviral Particles: sc-92657-V and CCDC107 shRNA (m) Lentiviral Particles: sc-142050-V.

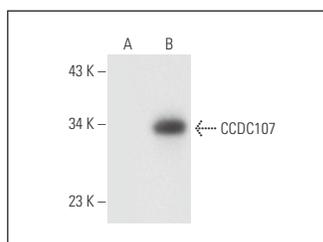
Molecular Weight of CCDC107: 31 kDa.

Positive Controls: CCDC107 (m): 293T Lysate: sc-125103 or U-251-MG whole cell lysate: sc-364176.

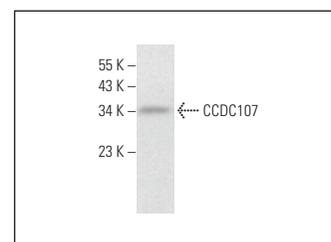
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CCDC107 (E-12): sc-393846. Western blot analysis of CCDC107 expression in non-transfected: sc-117752 (A) and mouse CCDC107 transfected: sc-125103 (B) 293T whole cell lysates.



CCDC107 (E-12): sc-393846. Western blot analysis of CCDC107 expression in U-251-MG whole cell lysate.

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.