

CCDC18 (G-5): sc-515316

BACKGROUND

CCDC18 (coiled-coil domain containing 18), also known as NY-SAR-41 or dJ17123.1, is a 1,454 amino acid protein expressed as 2 isoforms and encoded by a gene mapping to human chromosome 1. Chromosome 1 is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome. There are about 3,000 genes on chromosome 1, and considering the great number of genes there are also a large number of diseases associated with chromosome 1. Notably, the rare aging disease Hutchinson-Gilford progeria is associated with the LMNA gene which encodes lamin A. When defective, the LMNA gene product can build up in the nucleus and cause characteristic nuclear blebs. The mechanism of rapidly enhanced aging is unclear and is a topic of continuing exploration. The MUTYH gene is located on chromosome 1 and is partially responsible for familial adenomatous polyposis. Stickler syndrome, Parkinsons, Gaucher disease and Usher syndrome are also associated with chromosome 1. A breakpoint has been identified in 1q which disrupts the DISC1 gene and is linked to schizophrenia. Aberrations in chromosome 1 are found in a variety of cancers including head and neck cancer, malignant melanoma and multiple myeloma.

REFERENCES

1. Watson, M.L., et al. 1990. Genomic organization of the selectin family of leukocyte adhesion molecules on human and mouse chromosome 1. *J. Exp. Med.* 172: 263-272.
2. Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders— cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. *Am. J. Hum. Genet.* 69: 428-433.
3. Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.

CHROMOSOMAL LOCATION

Genetic locus: CCDC18 (human) mapping to 1p22.1; Ccdc18 (mouse) mapping to 5 F.

SOURCE

CCDC18 (G-5) is a mouse monoclonal antibody raised against amino acids 801-933 mapping within an internal region of CCDC18 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CCDC18 (G-5) is available conjugated to agarose (sc-515316 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515316 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515316 PE), fluorescein (sc-515316 FITC), Alexa Fluor[®] 488 (sc-515316 AF488), Alexa Fluor[®] 546 (sc-515316 AF546), Alexa Fluor[®] 594 (sc-515316 AF594) or Alexa Fluor[®] 647 (sc-515316 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515316 AF680) or Alexa Fluor[®] 790 (sc-515316 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CCDC18 (G-5) is recommended for detection of CCDC18 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 CCDC18 siRNA (h): sc-78877, CCDC18 siRNA (m): sc-142092, CCDC18 shRNA Plasmid (h): sc-78877-SH, CCDC18 shRNA Plasmid (m): sc-142092-SH, CCDC18 shRNA (h) Lentiviral Particles: sc-78877-V and CCDC18 shRNA (m) Lentiviral Particles: sc-142092-V.

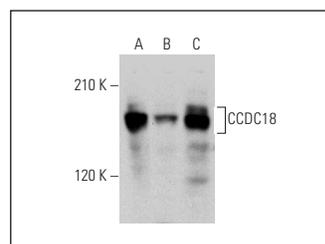
Molecular Weight of CCDC18: 169 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or CCRF-CEM cell lysate: sc-2225.

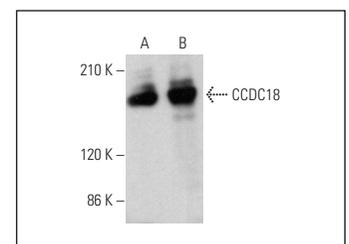
RECOMMENDED SUPPORT REAGENTS

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



CCDC18 (G-5): sc-515316. Western blot analysis of CCDC18 expression in HeLa (A), K-562 (B) and CCRF-CEM (C) whole cell lysates.



CCDC18 (G-5): sc-515316. Western blot analysis of CCDC18 expression in Jurkat (A) and A549 (B) 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.

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