

CC2D1B (E-12): sc-271761

BACKGROUND

CC2D1B is an 858 amino acid protein 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, Parkinson's, 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.
4. Lans, H. and Hoeijmakers, J.H. 2006. Cell biology: aging nucleus gets out of shape. *Nature* 440: 32-34.

CHROMOSOMAL LOCATION

Genetic locus: CC2D1B (human) mapping to 1p32.3; Cc2d1b (mouse) mapping to 4 C7.

SOURCE

CC2D1B (E-12) is a mouse monoclonal antibody raised against amino acids 521-778 mapping near the C-terminus of CC2D1B of human 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.

CC2D1B (E-12) is available conjugated to agarose (sc-271761 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271761 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271761 PE), fluorescein (sc-271761 FITC), Alexa Fluor® 488 (sc-271761 AF488), Alexa Fluor® 546 (sc-271761 AF546), Alexa Fluor® 594 (sc-271761 AF594) or Alexa Fluor® 647 (sc-271761 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271761 AF680) or Alexa Fluor® 790 (sc-271761 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

CC2D1B (E-12) is recommended for detection of CC2D1B 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).

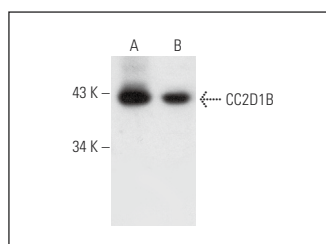
Suitable for use as control antibody for CC2D1B siRNA (h): sc-78613, CC2D1B siRNA (m): sc-142039, CC2D1B shRNA Plasmid (h): sc-78613-SH, CC2D1B shRNA Plasmid (m): sc-142039-SH, CC2D1B shRNA (h) Lentiviral Particles: sc-78613-V and CC2D1B shRNA (m) Lentiviral Particles: sc-142039-V.

Positive Controls: JAR cell lysate: sc-2276, HeLa whole cell lysate: sc-2200 or T24 cell lysate: sc-2292.

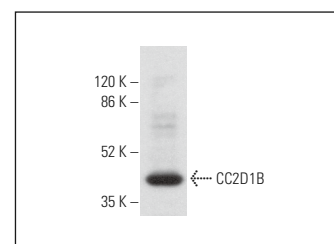
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (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 BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CC2D1B (E-12): sc-271761. Western blot analysis of CC2D1B expression in JAR (A) and HeLa (B) whole cell lysates.



CC2D1B (E-12): sc-271761. Western blot analysis of CC2D1B expression in T24 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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

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