

DENND4B (F-10): sc-514660

BACKGROUND

DENND4B (DENN/MADD domain containing 4B), also known as KIAA0476, is a 1,496 amino acid protein that contains a dDENN domain, a DENN domain, a uDENN domain, a MABP domain and two PPR (pentatricopeptide) repeats. The DENND4B protein is thought to target a tubular membrane compartment adjacent to the Golgi, where it activates Rab10. The gene encoding DENND4B maps to human chromosome 1, the largest human chromosome which spans about 260 million base pairs and makes up 8% of the human genome. Other notable genes located on chromosome 1 include LMNA, which is associated with the rare aging disease Hutchinson-Gilford progeria, and the MUTYH gene, which is partially responsible for familial adenomatous polyposis.

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. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. *Nature* 441: 315-321.
5. Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC1 in major mental illness. *Schizophr. Bull.* 32: 409-416.
6. Lans, H. and Hoeijmakers, J.H. 2006. Cell biology: aging nucleus gets out of shape. *Nature* 440: 32-34.
7. Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
8. Yoshimura, S., et al. 2010. Family-wide characterization of the DENN domain Rab GDP-GTP exchange factors. *J. Cell Biol.* 191: 367-381.

CHROMOSOMAL LOCATION

Genetic locus: DENND4B (human) mapping to 1q21.3.

SOURCE

DENND4B (F-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1121-1145 within an internal region of DENND4B of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-514660 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

DENND4B (F-10) is recommended for detection of DENND4B of 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 DENND4B siRNA (h): sc-88449, DENND4B shRNA Plasmid (h): sc-88449-SH and DENND4B shRNA (h) Lentiviral Particles: sc-88449-V.

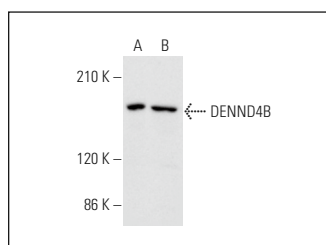
Molecular Weight of DENND4B: 164 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, U-87 MG cell lysate: sc-2411 or HEL 92.1.7 cell lysate: sc-2270.

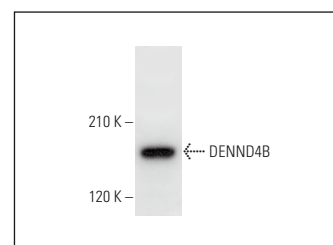
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



DENND4B (F-10): sc-514660. Western blot analysis of DENND4B expression in HEL 92.1.7 (A) and K-562 (B) whole cell lysates.



DENND4B (F-10): sc-514660. Western blot analysis of DENND4B expression in U-87 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.

PROTOCOLS

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