SANTA CRUZ BIOTECHNOLOGY, INC.

DENND2D (P-13): sc-164167

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

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. The DENND2D gene product has been provisionally designated DENND2D pending further characterization.

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., et al. 2006. Cell biology: aging nucleus gets out of shape. Nature 440: 32-34.
5. Gregory, S.G., et al. 2006. The DNA sequence and biological annotation of human chromosome 1. Nature 441: 315-321.
6. Hennah, W., et al. 2006. Genes and schizophrenia: beyond schizophrenia: the role of DISC-1 in major mental illness. Schizophr. Bull. 32: 409-416.

CHROMOSOMAL LOCATION

Genetic locus: DENND2D (human) mapping to 1p13.3; Dennd2d (mouse) mapping to 3 F2.3.

SOURCE

DENND2D (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of DENND2D of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164167 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

DENND2D (P-13) is recommended for detection of DENND2D of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with DENND2A or DENND2C.

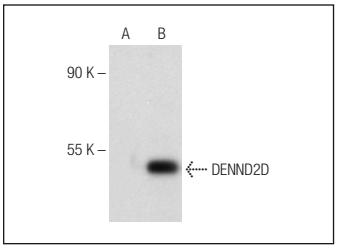
DENND2D (P-13) is also recommended for detection of DENND2D in additional species, including porcine.

Suitable for use as control antibody for DENND2D siRNA (h): sc-88453, DENND2D siRNA (m): sc-143000, DENND2D shRNA Plasmid (h): sc-88453-SH, DENND2D shRNA Plasmid (m): sc-143000-SH, DENND2D shRNA (h) Lentiviral Particles: sc-88453-V and DENND2D shRNA (m) Lentiviral Particles: sc-143000-V.

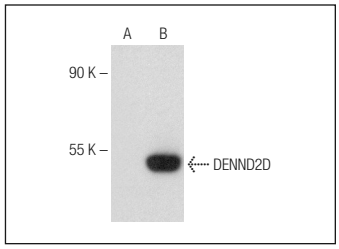
Molecular Weight of DENND2D: 53 kDa.

Positive Controls: DENND2D (m): 293T Lysate: sc-119744.

DATA



DENND2D (P-13): sc-164167. Western blot analysis of DENND2D expression in non-transfected: sc-117752 (**A**) and mouse DENND2D transfected: sc-119745 (**B**) 293T whole cell lysates.



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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 or our catalog for detailed protocols and support products.