

ANKRD50 (B-11): sc-515380

BACKGROUND

Ankyrins are membrane adaptor molecules that play important roles in coupling integral membrane proteins to the spectrin-based cytoskeleton network. Mutations of ankyrin genes lead to severe genetic diseases, such as fatal cardiac arrhythmias and hereditary spherocytosis. ANKRD50 (ankyrin repeat domain 50) is a 1,429 amino acid phosphoprotein that contains 19 ANK repeats. Conserved in chimpanzee, canine, bovine, mouse, rat, chicken, zebrafish, fruit fly and mosquito, ANKRD50 is encoded by a gene that maps to human chromosome 4q28.1. Chromosome 4 represents approximately 6% of the human genome and contains nearly 900 genes. Notably, the Huntingtin gene, which encodes an expanded glutamine tract in cases of Huntington's disease, is located on chromosome 4. FGFR-3 is also encoded by a gene that maps to human chromosome 4 and has been associated with thanatophoric dwarfism, achondroplasia, Muenke syndrome and bladder cancer. Chromosome 4 is also linked to Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

1. Cowan, C.M. and Raymond, L.A. 2006. Selective neuronal degeneration in Huntington's disease. *Curr. Top. Dev. Biol.* 75: 25-71.
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3. de Frutos, C.A., Vega, S., Manzanera, M., Flores, J.M., Huertas, H., Martínez-Frías, M.L. and Nieto, M.A. 2007. Snail1 is a transcriptional effector of FGFR3 signaling during chondrogenesis and achondroplasias. *Dev. Cell* 13: 872-883.
4. Ruiz-Perez, V.L., Blair, H.J., Rodriguez-Andres, M.E., Blanco, M.J., Wilson, A., Liu, Y.N., Miles, C., Peters, H. and Goodship, J.A. 2007. Evc is a positive mediator of Ihh-regulated bone growth that localises at the base of chondrocyte cilia. *Development* 134: 2903-2912.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD50 (human) mapping to 4q28.1.

SOURCE

ANKRD50 (B-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1014-1031 within an internal region of ANKRD50 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-515380 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

ANKRD50 (B-11) is recommended for detection of ANKRD50 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 ANKRD50 siRNA (h): sc-88918, ANKRD50 shRNA Plasmid (h): sc-88918-SH and ANKRD50 shRNA (h) Lentiviral Particles: sc-88918-V.

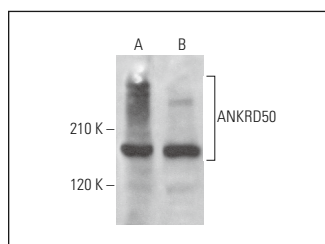
Molecular Weight of ANKRD50: 156 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or IMR-32 cell lysate: sc-2409.

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



ANKRD50 (B-11): sc-515380. Western blot analysis of ANKRD50 expression in HeLa (A) and IMR-32 (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.

PROTOCOLS

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