

ANKRD50 (G-12): sc-138120

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., et al. 2006. Selective neuronal degeneration in Huntington's disease. *Curr. Top. Dev. Biol.* 75: 25-71.
2. Chandler, R.J., et al. 2007. Metabolic phenotype of methylmalonic acidemia in mice and humans: the role of skeletal muscle. *BMC Med. Genet.* 8: 64.
3. de Futos, C.A., et al. 2007. Snail1 is a transcriptional effector of FGFR3 signaling during chondrogenesis and achondroplasias. *Dev. Cell* 13: 872-883.
4. Ruiz-Perez, V.L., et al. 2007. Evc is a positive mediator of Ihh-regulated bone growth that localises at the base of chondrocyte cilia. *Development* 134: 2903-2912.
5. Hayes, M.G., et al. 2007. Identification of type 2 diabetes genes in Mexican Americans through genome-wide association studies. *Diabetes* 56: 3033-3044.
6. van der Linden, I.J., et al. 2008. Inhibition of methylation and changes in gene expression in relation to neural tube defects. *Birth Defects Res. Part A Clin. Mol. Teratol.* 82: 676-683.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD50 (human) mapping to 4q28.1; Ankrd50 (mouse) mapping to 3 B.

SOURCE

ANKRD50 (G-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ANKRD50 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138120 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ANKRD50 (G-12) is recommended for detection of ANKRD50 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other ANKRD family members.

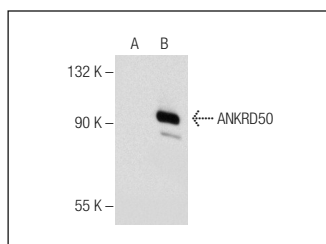
ANKRD50 (G-12) is also recommended for detection of ANKRD50 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for ANKRD50 siRNA (h): sc-88918, ANKRD50 siRNA (m): sc-141109, ANKRD50 shRNA Plasmid (h): sc-88918-SH, ANKRD50 shRNA Plasmid (m): sc-141109-SH, ANKRD50 shRNA (h) Lentiviral Particles: sc-88918-V and ANKRD50 shRNA (m) Lentiviral Particles: sc-141109-V.

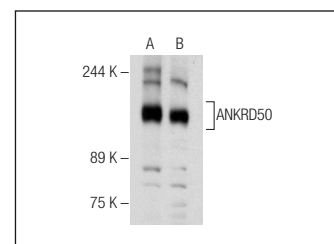
Molecular Weight of ANKRD50: 156 kDa.

Positive Controls: ANKRD50 (h): 293T Lysate: sc-113973, NIH/3T3 whole cell lysate: sc-2210 or HEK293 whole cell lysates: sc-45136.

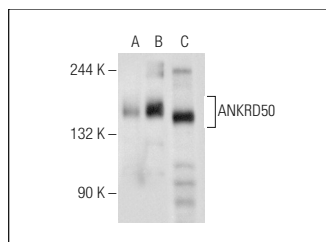
DATA



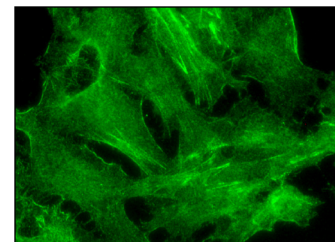
ANKRD50 (G-12): sc-138120. Western blot analysis of ANKRD50 expression in non-transfected: sc-117752 (A) and human ANKRD50 transfected: sc-113973 (B) 293T whole cell lysates.



ANKRD50 (G-12): sc-138120. Western blot analysis of ANKRD50 expression in NIH/3T3 (A) and HEK293 (B) whole cell lysates.



ANKRD50 (G-12): sc-138120. Western blot analysis of ANKRD50 expression in non-transfected: sc-117752 (A) and human ANKRD50 transfected: sc-373553 (B) 293T whole cell lysates and mouse heart tissue extract (C).



ANKRD50 (G-12): sc-138120. Immunofluorescence staining of formalin-fixed Hep G2 cells showing membrane localization.

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.