SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD50 (E-12): sc-390588

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.
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 Frutos, 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.

CHROMOSOMAL LOCATION

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

SOURCE

ANKRD50 (E-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1303-1318 of ANKRD50 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ANKRD50 (E-12) is available conjugated to agarose (sc-390588 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390588 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390588 PE), fluorescein (sc-390588 FITC), Alexa Fluor® 488 (sc-390588 AF488), Alexa Fluor® 546 (sc-390588 AF546), Alexa Fluor® 594 (sc-390588 AF594) or Alexa Fluor® 647 (sc-390588 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390588 AF680) or Alexa Fluor® 790 (sc-390588 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390588 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ANKRD50 (E-12) is recommended for detection of ANKRD50 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 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.

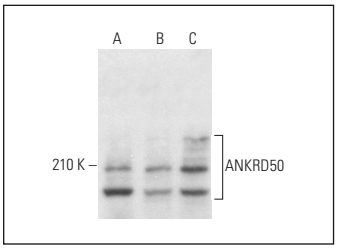
Molecular Weight of ANKRD50: 156 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, ANKRD50 (h): 293T Lysate: sc-113973 or ECV304 cell lysate: sc-2269.

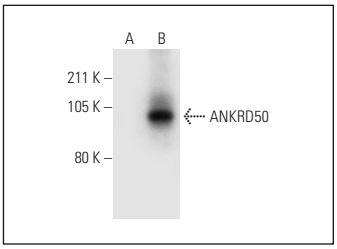
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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 (E-12): sc-390588. Western blot analysis of ANKRD50 expression in ECV304 (**A**), BC_3H1 (**B**) and NIH/3T3 (**C**) whole cell lysates.



ANKRD50 (E-12): sc-390588. Western blot analysis of ANKRD50 expression in non-transfected: sc-117752 (**A**) and human ANKRD50 transfected: sc-113973 (**B**) 293T 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.

RESEARCH USE

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