SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD20A (H-300): sc-99118



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. ANKRD20A (ankyrin repeat domain-containing protein 20A) is an 823 amino acid protein that contains 5 ANK repeats. The gene encoding ANKRD20A maps to chromosome 9, which consists of about 145 million bases and encodes nearly 900 genes. Considered to play a role in gender determination, deletion of the distal portion of 9p can lead to development of male to female sex reversal, the phenotype of a female with a male X,Y genotype. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and familial dysautonomia are associated with chromosome 9. Also, chromosome 9 is partnered with chromosome 22 in the translocation leading to the aberrant production of Bcr-Abl fusion protein often found in leukemias.

REFERENCES

- Hryniewicz-Jankowska, A., Czogalla, A., Bok, E. and Sikorsk, A.F. 2002. Ankyrins, multifunctional proteins involved in many cellular pathways. Folia Histochem. Cytobiol. 40: 239-249.
- Humphray, S.J., Oliver, K., Hunt, A.R., Plumb, R.W., Loveland, J.E., Howe, K.L., Andrews, T.D., Searle, S., Hunt, S.E., Scott, C.E., Jones, M.C., Ainscough, R., Almeida, J.P., Ambrose, K.D., Ashwell, R.I., Babbage, A.K., Babbage, S., Bagguley, C.L., Bailey, J., Banerjee, R., et al. 2004. DNA sequence and analysis of human chromosome 9. Nature 429: 369-374.
- Hopitzan, A.A., Baines, A.J. and Kordeli, E. 2006. Molecular evolution of ankyrin: gain of function in vertebrates by acquisition of an obscurin/titinbinding-related domain. Mol. Biol. Evol. 23: 46-55.
- Zheng, X., Güller, S., Beissert, T., Puccetti, E. and Ruthardt, M. 2006. BCR and its mutants, the reciprocal t(9;22)-associated ABL/BCR fusion proteins, differentially regulate the cytoskeleton and cell motility. BMC Cancer 7: 262.
- Cai, X. and Zhang, Y. 2006. Molecular evolution of the ankyrin gene family. Mol. Biol. Evol. 23: 550-558.
- Fernandez-L, A., Garrido-Martin, E.M., Sanz-Rodriguez, F., Pericacho, M., Rodriguez-Barbero, A., Eleno, N., Lopez-Novoa, J.M., Düwell, A., Vega, M.A., Bernabeu, C. and Botella, L.M. 2007. Gene expression fingerprinting for human hereditary hemorrhagic telangiectasia. Hum. Mol. Genet. 16: 1515-1533.
- 7. Gardiner, J., Barton, D., Marc, J and Overall, R. 2007. Potential role of tubulin acetylation and microtubule-based protein trafficking in familial dysautonomia. Traffic 8: 1145-1149.

SOURCE

ANKRD20A (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus of ANKRD20A1 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.

APPLICATIONS

ANKRD20A (H-300) is recommended for detection of ANKRD20A1-4 of 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); may cross-react with ANKRD18A, ANKRD18B and ANKRD19.

Suitable for use as control antibody for ANKRD20A siRNA (h): sc-92614, ANKRD20A shRNA Plasmid (h): sc-92614-SH and ANKRD20A shRNA (h) Lentiviral Particles: sc-92614-V.

Molecular Weight of ANKRD20A: 94 kDa.

Positive Controls: ANKRD20A1 (h): 293T Lysate: sc-127972.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



ANKRD20A (H-300): sc-99118. Western blot analysis of ANKRD20A1 expression in non-transfected: sc-117752 (**A**) and human ANKRD20A1 transfected: sc-12792 (**B**) 293T whole cell lysates.

STORAGE

Store at 4° C, **D0 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.