

ANKRD20A (B-9): sc-374250

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 five 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

1. Hryniewicz-Jankowska, A., et al. 2002. Ankyrins, multifunctional proteins involved in many cellular pathways. *Folia Histochem. Cytobiol.* 40: 239-249.
2. Humphray, S.J., et al. 2004. DNA sequence and analysis of human chromosome 9. *Nature* 429: 369-374.
3. Hopitzan, A.A., et al. 2006. Molecular evolution of ankyrin: gain of function in vertebrates by acquisition of an obscurin/titin-binding-related domain. *Mol. Biol. Evol.* 23: 46-55.
4. Zheng, X., et al. 2006. BCR and its mutants, the reciprocal t(9;22)-associated Abl/Bcr fusion proteins, differentially regulate the cytoskeleton and cell motility. *BMC Cancer* 6: 262.
5. Cai, X., et al. 2006. Molecular evolution of the ankyrin gene family. *Mol. Biol. Evol.* 23: 550-558.
6. Fernandez-L, A., et al. 2007. Gene expression fingerprinting for human hereditary hemorrhagic telangiectasia. *Hum. Mol. Genet.* 16: 1515-1533.

SOURCE

ANKRD20A (B-9) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of ANKRD20A1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ANKRD20A (B-9) is available conjugated to agarose (sc-374250 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374250 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374250 PE), fluorescein (sc-374250 FITC), Alexa Fluor® 488 (sc-374250 AF488), Alexa Fluor® 546 (sc-374250 AF546), Alexa Fluor® 594 (sc-374250 AF594) or Alexa Fluor® 647 (sc-374250 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374250 AF680) or Alexa Fluor® 790 (sc-374250 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

ANKRD20A (B-9) is recommended for detection of ANKRD20A1, ANKRD20A2, ANKRD20A3 and ANKRD20A4 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 ANKRD20A siRNA (h): sc-92614, ANKRD20A shRNA Plasmid (h): sc-92614-SH and ANKRD20A shRNA (h) Lentiviral Particles: sc-92614-V.

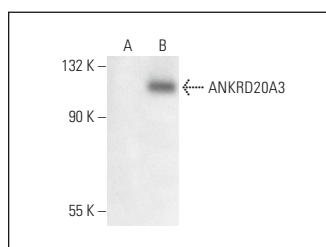
Molecular Weight of ANKRD20A: 94 kDa.

Positive Controls: ANKRD20A3 (h): 293T Lysate: sc-369420.

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



ANKRD20A (B-9): sc-374250. Western blot analysis of ANKRD20A3 expression in non-transfected: sc-117752 (A) and human ANKRD20A3 transfected: sc-369420 (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.

PROTOCOLS

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