SANTA CRUZ BIOTECHNOLOGY, INC.

ANKRD7 (B-9): sc-515170

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. ANKRD7 (ankyrin repeat domain-containing protein 7), also known as testis-specific protein TSA806, is a 254 amino acid protein that contains five ANK repeats. Expressed specifically in testis, ANKRD7 is present as two isoforms produced by alternative splicing. The gene that encodes ANKRD7 maps to human chromosome 7, which is about 158 milllion bases long, encodes over 1,000 genes and makes up about 5% of the human genome. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

1. Bennett, V., et al. 1985. Ankyrin and synapsin: spectrin-binding proteins associated with brain membranes. J. Cell. Biochem. 29: 157-169.
2. Davis, J., et al. 1989. Diversity in membrane binding sites of ankyrins. Brain ankyrin, erythrocyte ankyrin, and processed erythrocyte ankyrin associate with distinct sites in kidney microsomes. J. Biol. Chem. 264: 6417-6426.
3. Ozaki, K., et al. 1996. Isolation of three testis-specific genes (TSA303, TSA806, TSA903) by a differential mRNA display method. Genomics 36: 316-319.
4. Liang, H., et al. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. Proc. Natl. Acad. Sci. USA 95: 3781-3785.
5. Hryniewicz-Jankowska, A., et al. 2002. Ankyrins, multifunctional proteins involved in many cellular pathways. Folia Histochem. Cytobiol. 40: 239-249.

CHROMOSOMAL LOCATION

Genetic locus: ANKRD7 (human) mapping to 7q31.31; Ankrd7 (mouse) mapping to 6 A2.

SOURCE

ANKRD7 (B-9) is a mouse monoclonal antibody raised against amino acids 1-59 mapping at the N-terminus of ANKRD7 of human origin.

PRODUCT

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

ANKRD7 (B-9) is available conjugated to agarose (sc-515170 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515170 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515170 PE), fluorescein (sc-515170 FITC), Alexa Fluor® 488 (sc-515170 AF488), Alexa Fluor® 546 (sc-515170 AF546), Alexa Fluor® 594 (sc-515170 AF594) or Alexa Fluor® 647 (sc-515170 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515170 AF680) or Alexa Fluor® 790 (sc-515170 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ANKRD7 (B-9) is recommended for detection of ANKRD7 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), immunohistochemistry (including paraffin-embedded sections) (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 ANKRD7 siRNA (h): sc-89768, ANKRD7 siRNA (m): sc-105069, ANKRD7 shRNA Plasmid (h): sc-89768-SH, ANKRD7 shRNA Plasmid (m): sc-105069-SH, ANKRD7 shRNA (h) Lentiviral Particles: sc-89768-V and ANKRD7 shRNA (m) Lentiviral Particles: sc-105069-V.

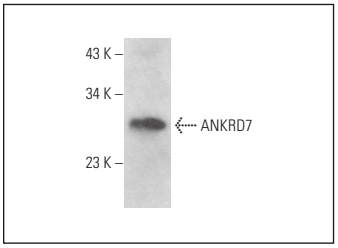
Molecular Weight of ANKRD7: 29 kDa.

Positive Controls: rat testis extract: sc-2400.

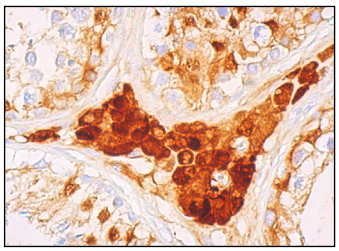
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



ANKRD7 (B-9): sc-515170. Western blot analysis of ANKRD7 expression in rat testis tissue extract.



ANKRD7 (B-9): sc-515170. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detected with m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216.

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.