SANTA CRUZ BIOTECHNOLOGY, INC.

ANKFY1 (B-6): sc-393353

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ANKFY1 (ankyrin repeat and FYVE domain containing 1), also known as ankyrin repeats hooked to a zinc finger motif, ANKHZN or ZFYVE14, is a 1,169 amino acid peripheral membrane protein that also localizes to endosomal membranes and cytoplasm. Ubiquitously expressed, ANKFY1 is found at highest levels in adult brain and is implicated in vesicle and protein transport. ANKFY1 exists as 2 alternatively spliced isoforms, contains 21 ANK repeats, one BTB (POZ) domain and a single FYVE-type zinc finger. The gene encoding ANKFY1 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes. Two key tumor suppressor genes are associated with chromosome 17, namely, p53 and BRCA1.

CHROMOSOMAL LOCATION

Genetic locus: ANKFY1 (human) mapping to 17p13.2; Ankfy1 (mouse) mapping to 11 B4.

SOURCE

ANKFY1 (B-6) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of ANKFY1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ANKFY1 (B-6) is available conjugated to agarose (sc-393353 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393353 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393353 PE), fluorescein (sc-393353 FITC), Alexa Fluor® 488 (sc-393353 AF488), Alexa Fluor® 546 (sc-393353 AF546), Alexa Fluor® 594 (sc-393353 AF594) or Alexa Fluor® 647 (sc-393353 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393353 AF680) or Alexa Fluor® 790 (sc-393353 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

ANKFY1 (B-6) is recommended for detection of ANKFY1 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 ANKFY1 siRNA (h): sc-93654, ANKFY1 siRNA (m): sc-141066, ANKFY1 shRNA Plasmid (h): sc-93654-SH, ANKFY1 shRNA Plasmid (m): sc-141066-SH, ANKFY1 shRNA (h) Lentiviral Particles: sc-93654-V and ANKFY1 shRNA (m) Lentiviral Particles: sc-141066-V.

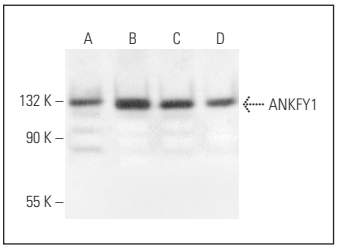
Molecular Weight of ANKFY1: 130 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, T98G cell lysate: sc-2294 or HeLa whole cell lysate: sc-2200.

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



ANKFY1 (B-6): sc-393353. Western blot analysis of ANKFY1 expression in MCF7 (**A**), T98G (**B**), HeLa (**C**) and Jurkat (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ding, M., et al. 2017. Purkinje cell degeneration and motor coordination deficits in a new mouse model of autosomal recessive spastic ataxia of Charlevoix-Saguenay. Front. Mol. Neurosci. 10: 121.
2. Maekawa, M., et al. 2017. Cullin-3 and its adaptor protein ANKFY1 determine the surface level of Integrin β1 in endothelial cells. Biol. Open 6: 1707-1719.
3. Hermle, T., et al. 2018. GAPVD1 and ANKFY1 mutations implicate RAB5 regulation in nephrotic syndrome. J. Am. Soc. Nephrol. 29: 2123-2138.
4. Wei, B., et al. 2024. ANKFY1 bridges ATG2A-mediated lipid transfer from endosomes to phagophores. Cell Discov. 10: 43.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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