SANTA CRUZ BIOTECHNOLOGY, INC.

# ANKMY1 (H-10): sc-514974

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. ANKMY1 (ankyrin repeat and MYND domain containing 1), also known as ZMYND13 or TSAL1, is a 941 amino acid protein that contains seven ANK repeats, three MORN repeats and one MYND-type zinc finger. MORN repeats were first identified in junctophilins, cytoplasmic proteins involved in junctions between the plasma membrane and the ER/SR membrane. The presence of MORN repeats suggests that ANKMY1 may interact with the plasma membrane. The MYND domain consists of a cluster of cysteine and histidine residues, arranged with an invariant spacing to form a potential zinc-binding motif which may be involved in protein-protein interactions. Three isoforms of ANKMY1 exists due to alternative splicing events.

## REFERENCES


1. Bennett, V., et al. 1985. Ankyrin and synapsin: spectrin-binding proteins associated with brain membranes. J. Cell. Biochem. 29: 157-169.
2. Koide, A., et al. 1998. The fibronectin type III domain as a scaffold for novel binding proteins. J. Mol. Biol. 284: 1141-1151.
3. Hryniewicz-Jankowska, A., et al. 2002. Ankyrins, multifunctional proteins involved in many cellular pathways. Folia Histochem. Cytobiol. 40: 239-249.
4. Ma, H., et al. 2006. MORN motifs in plant PIPKs are involved in the regulation of subcellular localization and phospholipid binding. Cell Res. 16: 466-478.


## CHROMOSOMAL LOCATION

Genetic locus: ANKMY1 (human) mapping to 2q37.3.

## SOURCE

ANKMY1 (H-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 444-466 within an internal region of ANKMY1 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.

ANKMY1 (H-10) is available conjugated to agarose (sc-514974 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514974 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514974 PE), fluorescein (sc-514974 FITC), Alexa Fluor® 488 (sc-514974 AF488), Alexa Fluor® 546 (sc-514974 AF546), Alexa Fluor® 594 (sc-514974 AF594) or Alexa Fluor® 647 (sc-514974 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514974 AF680) or Alexa Fluor® 790 (sc-514974 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514974 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

ANKMY1 (H-10) is recommended for detection of ANKMY1 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 ANKMY1 siRNA (h): sc-95015, ANKMY1 shRNA Plasmid (h): sc-95015-SH and ANKMY1 shRNA (h) Lentiviral Particles: sc-95015-V.

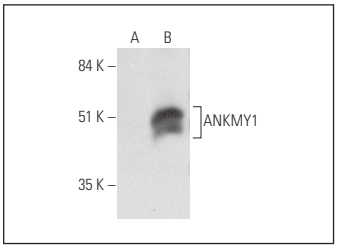
Molecular Weight of ANKMY1: 106 kDa.

Positive Controls: ANKMY1 (h4): 293T Lysate: sc-114400.

## 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




ANKMY1 (H-10): sc-514974. Western blot analysis of ANKMY1 expression in non-transfected: sc-117752 (**A**) and human ANKMY1 transfected: sc-114400 (**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.