

# ANKMY1 (E-15): sc-107400

## 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 junctional proteins, 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 exist due to alternative splicing events.

## REFERENCES

- Bennett, V., Baines, A.J. and Davis, J.Q. 1985. Ankyrin and synapsin: spectrin-binding proteins associated with brain membranes. *J. Cell. Biochem.* 29: 157-169.
- Koide, A., Bailey, C.W., Huang, X. and Koide, S. 1998. The fibronectin type III domain as a scaffold for novel binding proteins. *J. Mol. Biol.* 284: 1141-1151.
- 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.
- Ma, H., Lou, Y., Lin, W.H. and Xue, H.W. 2006. MORN motifs in plant PIPKs are involved in the regulation of subcellular localization and phospholipid binding. *Cell Res.* 16: 466-478.
- Hopitzan, A.A., Baines, A.J. and Kordeli, E. 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

ANKMY1 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ANKMY1 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.

Blocking peptide available for competition studies, sc-107400 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

ANKMY1 (E-15) is recommended for detection of ANKMY1 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); non cross-reactive with family member ANKMY2.

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.

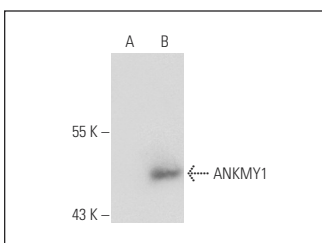
Molecular Weight of ANKMY1: 106 kDa.

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

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



ANKMY1 (E-15): sc-107400. Western blot analysis of ANKMY1 expression in non-transfected: sc-117752 (A) and human ANKMY1 transfected: sc-114400 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.