

# ANKDD1A (L-16): sc-244906

## BACKGROUND

ANKDD1A (ankyrin repeat and death domain containing 1A) is a 522 amino acid protein that contains 11 ANK repeats and one death domain. Encoded by a gene that maps to human chromosome 15q22.31, ANKDD1A is conserved in chimpanzee, canine, mouse, rat, chicken and zebrafish, and exists as five alternatively spliced isoforms. Chromosome 15 makes up approximately 3% of the human genome and contains 106 million base pairs encoding more than 700 genes. Angelman and Prader-Willi syndromes are associated with loss of function or deletion of genes on chromosome 15q. In the case of Angelman syndrome, this loss is due to inactivity of the maternal encoded UBE3A gene in the brain by either chromosomal deletion or mutation. In cases of Prader-Willi syndrome, a partial or complete deletion from the paternal copy of chromosome 15 occurs. Tay-Sachs disease, a lethal disorder associated with mutations of the HEXA gene, and Marfan syndrome are also associated with chromosome 15.

## REFERENCES

- Zody, M.C., Garber, M., Sharpe, T., Young, S.K., Rowen, L., O'Neill, K., Whittaker, C.A., Kamal, M., Chang, J.L., Cuomo, C.A., Dewar, K., FitzGerald, M.G., Kodira, C.D., Madan, A., Qin, S., Yang, X., Abbasi, N., Abouelleil, A., et al. 2006. Analysis of the DNA sequence and duplication history of human chromosome 15. *Nature* 440: 671-675.
- Cachón-González, M.B., Wang, S.Z., Lynch, A., Ziegler, R., Cheng, S.H. and Cox, T.M. 2006. Effective gene therapy in an authentic model of Tay-Sachs-related diseases. *Proc. Natl. Acad. Sci. USA* 103: 10373-10378.
- Diene, G., Postel-Vinay, A., Pinto, G., Polak, M. and Tauber, M. 2007. The Prader-Willi syndrome. *Ann. Endocrinol.* 68: 129-137.
- Lalande, M. and Calciano, M.A. 2007. Molecular epigenetics of Angelman syndrome. *Cell. Mol. Life Sci.* 64: 947-960.
- Makoff, A.J. and Flomen, R.H. 2007. Detailed analysis of 15q11-q14 sequence corrects errors and gaps in the public access sequence to fully reveal large segmental duplications at breakpoints for Prader-Willi, Angelman, and inv dup(15) syndromes. *Genome Biol.* 8: R114.
- Maegawa, G.H., Tropak, M., Buttner, J., Stockley, T., Kok, F., Clarke, J.T. and Mahuran, D.J. 2007. Pyrimethamine as a potential pharmacological chaperone for late-onset forms of GM2 gangliosidosis. *J. Biol. Chem.* 282: 9150-9161.
- Ramirez, F. and Dietz, H.C. 2007. Fibrillin-rich microfibrils: Structural determinants of morphogenetic and homeostatic events. *J. Cell. Physiol.* 213: 326-330.
- ten Dijke, P. and Arthur, H.M. 2007. Extracellular control of TGFbeta signalling in vascular development and disease. *Nat. Rev. Mol. Cell Biol.* 8: 857-869.
- SWISS-PROT/TrEMBL (Q495B1). World Wide Web URL: <http://www.uniprot.org/uniprot/Q495B1>

## CHROMOSOMAL LOCATION

Genetic locus: ANKDD1A (human) mapping to 15q22.31; Ankdd1a (mouse) mapping to 9 C.

## SOURCE

ANKDD1A (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ANKDD1A 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-244906 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ANKDD1A (L-16) is recommended for detection of ANKDD1A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 ANKDD1B.

Suitable for use as control antibody for ANKDD1A siRNA (h): sc-90202, ANKDD1A siRNA (m): sc-141065, ANKDD1A shRNA Plasmid (h): sc-90202-SH, ANKDD1A shRNA Plasmid (m): sc-141065-SH, ANKDD1A shRNA (h) Lentiviral Particles: sc-90202-V and ANKDD1A shRNA (m) Lentiviral Particles: sc-141065-V.

Molecular Weight of ANKDD1A: 58 kDa.

## 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) 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.