

# ATP11A (N-16): sc-83985

## BACKGROUND

ATP11A (ATPase, class VI, type 11A), also known as ATPIS or ATPIH, is a 1,134 amino acid multi-pass membrane protein that belongs to the cation transport ATPase family and is expressed in a variety of tissues, including testis, brain, spleen and pancreas. Existing as two alternatively spliced isoforms, ATP11A uses ATP to drive the transport of ions, such as calcium, across cellular membranes. Human ATP11A shares 91% sequence identity with its mouse counterpart, suggesting a conserved role between species. The gene encoding ATP11A maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome.

## REFERENCES

1. Kikuno, R., Nagase, T., Ishikawa, K., Hirose, M., Miyajima, N., Tanaka, A., Kotani, H., Nomura, N. and Ohara, O. 1999. Prediction of the coding sequences of unidentified human genes. XIV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. DNA Res. 6: 197-205.
2. Halleck, M.S., Lawler J.F., Blackshaw, S., Gao, L., Nagarajan, P., Hacker, C., Pyle, S., Newman, J.T., Nakanishi, Y., Ando, H., Weinstock, D., Williamson, P. and Schlegel, R.A. 1999. Differential expression of putative transbilayer amphipath transporters. *Physiol. Genomics* 1: 139-150.
3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605868. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Andrew Nesbit, M., Bowl, M.R., Harding, B., Schlessinger, D., Whyte, M.P. and Thakker, R.V. 2004. X-linked hypoparathyroidism region on Xq27 is evolutionarily conserved with regions on 3q26 and 13q34 and contains a novel P-type ATPase. *Genomics* 84: 1060-1070.
5. Zhang, B., Groffen, J. and Heisterkamp, N. 2005. Resistance to farnesyl-transferase inhibitors in Bcr/Abl-positive lymphoblastic leukemia by increased expression of a novel ABC transporter homolog ATP11A. *Blood* 106: 1355-1361.

## CHROMOSOMAL LOCATION

Genetic locus: ATP11A (human) mapping to 13q34; Atp11a (mouse) mapping to 8 A1.1.

## SOURCE

ATP11A (N-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of ATP11A of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83985 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ATP11A (N-16) is recommended for detection of ATP11A of mouse, rat and 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).

ATP11A (N-16) is also recommended for detection of ATP11A in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for ATP11A siRNA (h): sc-105104, ATP11A siRNA (m): sc-141335, ATP11A shRNA Plasmid (h): sc-105104-SH, ATP11A shRNA Plasmid (m): sc-141335-SH, ATP11A shRNA (h) Lentiviral Particles: sc-105104-V and ATP11A shRNA (m) Lentiviral Particles: sc-141335-V.

Molecular Weight of ATP11A: 130 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> 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.