

# ATP1AL1 (N-12): sc-83988

## BACKGROUND

ATP1AL1, also known as ATP12A, is a 1,039 amino acid multi-pass membrane protein that belongs to the P-type subfamily of cation transport ATPases. Expressed in skin and kidney tissue, ATP1AL1 consists of two subunits, designated  $\alpha$  and  $\beta$ , that work to catalyze the hydrolysis of ATP, a reaction that is coupled with the exchange of hydrogen and potassium across the plasma membrane. Via its catalytic and proton pump activity, ATP1AL1 is responsible for the active transport of potassium into the cell, an event that is crucial for cell survival and proper cell function. ATP1AL1 is expressed as two alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 13.

## REFERENCES

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9. Pestov, N.B., Korneenko, T.V., Shakhparonov, M.I., Shull, G.E. and Modyanov, N.N. 2006. Loss of acidification of anterior prostate fluids in Atp12a-null mutant mice indicates that nongastric H-K-ATPase functions as proton pump *in vivo*. *Am. J. Physiol., Cell Physiol.* 291: C366-C374.

## STORAGE

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

## CHROMOSOMAL LOCATION

Genetic locus: ATP12A (human) mapping to 13q12.12.

## SOURCE

ATP1AL1 (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ATP1AL1 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83988 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ATP1AL1 (N-12) is recommended for detection of ATP1AL1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

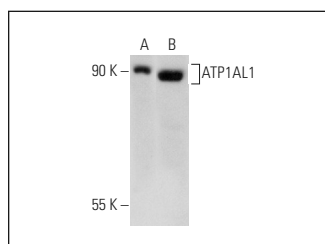
ATP1AL1 (N-12) is also recommended for detection of ATP1AL1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ATP1AL1 siRNA (h): sc-105105, ATP1AL1 shRNA Plasmid (h): sc-105105-SH and ATP1AL1 shRNA (h) Lentiviral Particles: sc-105105-V.

Molecular Weight (predicted) of ATP1AL1: 115 kDa.

Molecular Weight (observed) of ATP1AL1: 90 kDa.

## DATA



ATP1AL1 (N-12): sc-83988. Western blot analysis of ATP1AL1 expression in LADMAC (A) and KNRK (B) 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.