

# ATP10A (G-9): sc-514650

## BACKGROUND

ATPase class V type 10A (ATP10A), also known as aminophospholipid translocase VA (ATPVA) or probable phospholipid-transporting ATPase VA, is a 1,499 amino acid protein belonging to the cation transport ATPase (P-type) family. Localized to the cell membrane, ATP10A is widely expressed in various tissues, with highest levels in kidney, lung, brain, prostate, testis, ovary and small intestine. ATP10A transports phosphatidylserine and phosphatidylethanolamine from one side of a membrane lipid bilayer to another. The gene encoding ATP10A is an imprinted gene that is maternally expressed. Defects in this gene lead to Angelman syndrome (AS), also known as happy puppet syndrome. AS is characterized by mental retardation, movement or balance disorder, characteristic abnormal behaviors and severe limitations in speech and language.

## REFERENCES

1. Kayashima, T., et al. 2003. ATP10A, the mouse ortholog of the human imprinted ATP10A gene, escapes genomic imprinting. *Genomics* 81: 644-647.
2. Kayashima, T., et al. 2003. On the conflicting reports of imprinting status of mouse ATP10a in the adult brain: strain-background-dependent imprinting? *J. Hum. Genet.* 48: 492-493.
3. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 605855. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Kim, K.P., et al. 2007. Gene-specific vulnerability to imprinting variability in human embryonic stem cell lines. *Genome Res.* 17: 1731-1742.
5. Hogart, A., et al. 2008. Gender influences monoallelic expression of ATP10A in human brain. *Hum. Genet.* 124: 235-242.

## CHROMOSOMAL LOCATION

Genetic locus: ATP10A (human) mapping to 15q12; Atp10a (mouse) mapping to 7 C.

## SOURCE

ATP10A (G-9) is a mouse monoclonal antibody raised against amino acids 1001-1064 mapping near the C-terminus of ATP10A of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ATP10A (G-9) is available conjugated to agarose (sc-514650 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514650 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514650 PE), fluorescein (sc-514650 FITC), Alexa Fluor® 488 (sc-514650 AF488), Alexa Fluor® 546 (sc-514650 AF546), Alexa Fluor® 594 (sc-514650 AF594) or Alexa Fluor® 647 (sc-514650 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514650 AF680) or Alexa Fluor® 790 (sc-514650 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

ATP10A (G-9) is recommended for detection of ATP10A of mouse, rat and 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 ATP10A siRNA (h): sc-89984, ATP10A siRNA (m): sc-141332, ATP10A shRNA Plasmid (h): sc-89984-SH, ATP10A shRNA Plasmid (m): sc-141332-SH, ATP10A shRNA (h) Lentiviral Particles: sc-89984-V and ATP10A shRNA (m) Lentiviral Particles: sc-141332-V.

Molecular Weight of ATP10A: 168 kDa.

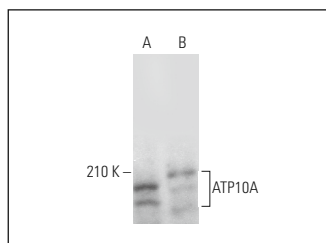
Positive Controls: WI-38 whole cell lysate: sc-364260, SH-SY5Y cell lysate: sc-3812 or C6 whole cell lysate: sc-364373.

## RECOMMENDED SUPPORT REAGENTS

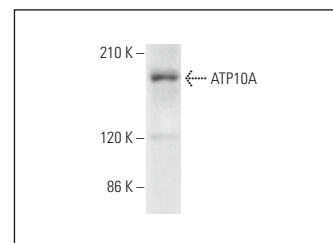
To ensure optimal results, the following support reagents are recommended:

- 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



ATP10A (G-9): sc-514650. Western blot analysis of ATP10A expression in SH-SY5Y (A) and C6 (B) whole cell lysates.



ATP10A (G-9): sc-514650. Western blot analysis of ATP10A expression in WI-38 whole cell lysate.

## 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) for detailed protocols and support products.