

ATP10B (T-17): sc-249985

BACKGROUND

ATP10B (ATPase, class V, type 10B), also known as ATPVB or probable phospholipid-transporting ATPase VB, is a 1,461 amino acid multi-pass membrane protein that belongs to the cation transport ATPase (P-type) family and the type IV subfamily. Encoded by a gene that maps to human chromosome 5q34, ATP10B functions as a transport protein that is conserved in canine, mouse, rat, chicken, zebrafish, *Schizosaccharomyces pombe*, *Arabidopsis thaliana* and rice. ATP10B exists as three alternatively spliced isoforms and is expressed in brain and testis. Functioning as a tumor marker, ATP10B is highly expressed in lung adenocarcinoma and peripheral blood cells. Increased expression of maternally expressed ATP10B may be linked to Prader-Willi-Angelman syndrome and allelic loss on chromosome 5q34 may be involved in the development of hepatocellular carcinoma.

REFERENCES

1. Tian, E., et al. 2003. The role of the Wnt-signaling antagonist DKK1 in the development of osteolytic lesions in multiple myeloma. *N. Engl. J. Med.* 349: 2483-2494.
2. Tatenhorst, L., et al. 2004. Regulators of G protein signaling 3 and 4 (RGS3, RGS4) are associated with glioma cell motility. *J. Neuropathol. Exp. Neurol.* 63: 210-222.
3. Paulusma, C.C. and Oude Elferink, R.P. 2005. The type 4 subfamily of P-type ATPases, putative aminophospholipid translocases with a role in human disease. *Biochim. Biophys. Acta* 1741: 11-24.
4. Wolfe, D.M. and Pearce, D.A. 2006. Channeling studies in yeast: yeast as a model for channelopathies? *Neuromolecular Med.* 8: 279-306.
5. Nakamura, N., et al. 2006. Identification of tumor markers and differentiation markers for molecular diagnosis of lung adenocarcinoma. *Oncogene* 25: 4245-4255.
6. Saelee, P., et al. 2008. Allelic loss on chromosome 5q34 is associated with poor prognosis in hepatocellular carcinoma. *J. Cancer Res. Clin. Oncol.* 134: 1135-1141.
7. Gaglani, S.M., et al. 2009. The genetic control of neocortex volume and covariation with neocortical gene expression in mice. *BMC Neurosci.* 10: 44.

CHROMOSOMAL LOCATION

Genetic locus: ATP10B (human) mapping to 5q34; Atp10b (mouse) mapping to 11 A5.

SOURCE

ATP10B (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of ATP10B 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-249985 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ATP10B (T-17) is recommended for detection of ATP10B 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 ATP10A or ATP10D.

ATP10B (T-17) is also recommended for detection of ATP10B in additional species, including canine and porcine.

Suitable for use as control antibody for ATP10B siRNA (h): sc-91676, ATP10B siRNA (m): sc-141333, ATP10B shRNA Plasmid (h): sc-91676-SH, ATP10B shRNA Plasmid (m): sc-141333-SH, ATP10B shRNA (h) Lentiviral Particles: sc-91676-V and ATP10B shRNA (m) Lentiviral Particles: sc-141333-V.

Molecular Weight of ATP10B isoforms a/b/c: 165/61/57 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 or our catalog for detailed protocols and support products.