

# ATP6F (E-16): sc-241867

## BACKGROUND

Vacuolar-type H<sup>+</sup>-ATPase (V-ATPase) is a multisubunit enzyme responsible for acidification of eukaryotic intracellular organelles. V-ATPase-dependent organelle acidification is essential for intracellular processes such as protein sorting, zymogen activation, and receptor-mediated endocytosis. ATP6F, also known as ATP6V0B or V-type proton ATPase 21 kDa proteolipid subunit, is a 205 amino acid multi-pass membrane protein that belongs to the V-ATPase proteolipid subunit family. ATP6F contains five transmembrane segments and a conserved glutamic acid residue that participates in proton transport activity. ATP6F is ubiquitously expressed and localizes to vacuole. The ATP6F gene contains eight exons and spans approximately 4 kb. The ATP6V0B gene is conserved in canine, bovine, mouse, rat, zebrafish, fruit fly, mosquito, *C. elegans*, *S. pombe*, *S. cerevisiae*, *K. lactis*, *E. gossypii*, *M. grisea*, *N. crassa*, *A. thaliana*, rice and *P. falciparum*, and maps to human chromosome 1p34.1.

## REFERENCES

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2. Finbow, M.E. and Harrison, M.A. 1997. The vacuolar H<sup>+</sup>-ATPase: a universal proton pump of eukaryotes. *Biochem. J.* 324: 697-712.
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4. Nishigori, H., Yamada, S., Tomura, H., Fernald, A.A., Le Beau, M.M., Takeuchi, T. and Takeda, J. 1998. Identification and characterization of the gene encoding a second proteolipid subunit of human vacuolar H<sup>+</sup>-ATPase (ATP6F). *Genomics* 50: 222-228.
5. Forgac, M. 1999. Structure and properties of the vacuolar (H<sup>+</sup>)-ATPases. *J. Biol. Chem.* 274: 12951-12954.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 603717. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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## CHROMOSOMAL LOCATION

Genetic locus: ATP6V0B (human) mapping to 1p34.1; Atp6v0b (mouse) mapping to 4 D2.1.

## SOURCE

ATP6F (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ATP6F 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-241867 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ATP6F (E-16) is recommended for detection of ATP6F 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); non cross-reactive with other ATP6 family members.

ATP6F (E-16) is also recommended for detection of ATP6F in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ATP6F siRNA (h): sc-78935, ATP6F siRNA (m): sc-141359, ATP6F shRNA Plasmid (h): sc-78935-SH, ATP6F shRNA Plasmid (m): sc-141359-SH, ATP6F shRNA (h) Lentiviral Particles: sc-78935-V and ATP6F shRNA (m) Lentiviral Particles: sc-141359-V.

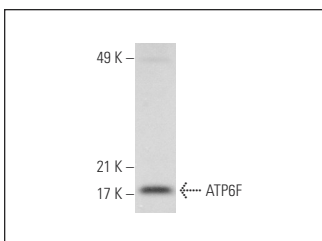
Molecular Weight of ATP6F: 21 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (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 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<sup>™</sup> Mounting Medium: sc-24941.

## DATA



ATP6F (E-16): sc-241867. Western blot analysis of ATP6F expression in Jurkat 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) or our catalog for detailed protocols and support products.