

# ATP6AP1 (N-15): sc-241200

## BACKGROUND

Vacuolar-type H<sup>+</sup>-ATPase (V-ATPase) is a multisubunit enzyme responsible for acidification of eukaryotic intracellular organelles. V-ATPases pump protons against an electrochemical gradient, thereby synthesizing ATP. A peripheral V<sub>1</sub> domain, which is responsible for ATP hydrolysis, and an integral V<sub>0</sub> domain, which is responsible for proton translocation, compose the V-ATPase. Nine subunits (A-H) make up the V<sub>1</sub> domain and five subunits (a, d, c, c' and c'') make up the V<sub>0</sub> domain. ATP6AP1 (ATPase, H<sup>+</sup> transporting, lysosomal accessory protein 1), also known as 16A, CF2, Ac45, XAP3, ATP6S1, VATPS1 (vacuolar ATP synthase S1 accessory protein) or ATP6IP1, is a type I transmembrane, V-ATPase accessory protein that is predominantly expressed in endocrine and neuronal cells. ATP6AP1 is responsible for targeting the V-ATPase enzyme to specialized complex vacuolar systems. Via its cytoplasmic tail, ATP6AP1 interacts with subunits of the V<sub>0</sub> domain. The disruption of this interaction in osteoclasts results in impaired bone resorption, suggesting an important role for ATP6AP1 in proper osteoclastic bone resorption.

## CHROMOSOMAL LOCATION

Genetic locus: ATP6AP1 (human) mapping to Xq28; Atp6ap1 (mouse) mapping to X A7.3.

## SOURCE

ATP6AP1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ATP6AP1 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-241200 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

ATP6AP1 (N-15) is recommended for detection of ATP6AP1 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 Renin Receptor.

ATP6AP1 (N-15) is also recommended for detection of ATP6AP1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ATP6AP1 siRNA (h): sc-91265, ATP6AP1 siRNA (m): sc-141357, ATP6AP1 shRNA Plasmid (h): sc-91265-SH, ATP6AP1 shRNA Plasmid (m): sc-141357-SH, ATP6AP1 shRNA (h) Lentiviral Particles: sc-91265-V and ATP6AP1 shRNA (m) Lentiviral Particles: sc-141357-V.

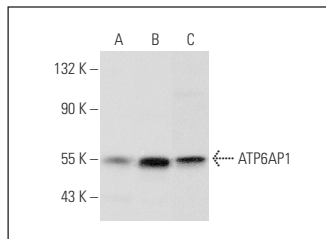
Molecular Weight of ATP6AP1: 45 kDa.

Positive Controls: PC-12 cell lysate: sc-2250, KNRK whole cell lysate: sc-2214 or NIH/3T3 whole cell lysate: sc-2210.

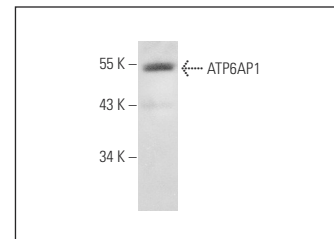
## RECOMMENDED SECONDARY REAGENTS

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) 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™ Mounting Medium: sc-24941.

## DATA



ATP6AP1 (N-15): sc-241200. Western blot analysis of ATP6AP1 expression in KNRK (A), PC-12 (B) and NIH/3T3 (C) whole cell lysates.



ATP6AP1 (N-15): sc-241200. Western blot analysis of ATP6AP1 expression in Hep G2 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.

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Try **ATP6AP1 (E-10): sc-515607** or **ATP6AP1 (85.1): sc-81886**, our highly recommended monoclonal alternatives to ATP6AP1 (N-15).