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# ATP6AP1 (h4): 293T Lysate: sc-175196

## 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.

## REFERENCES

1. Supek, F., et al. 1994. A novel accessory subunit for vacuolar H<sup>+</sup>-ATPase from chromaffin granules. *J. Biol. Chem.* 269: 24102-24106.
2. Getlawi, F., et al. 1996. Chromaffin granule membrane glycoprotein IV is identical with Ac45, a membrane-integral subunit of the granule's H<sup>+</sup>-ATPase. *Neurosci. Lett.* 219: 13-16.
3. Jansen, E.J., et al. 1998. Intracellular trafficking of the vacuolar H<sup>+</sup>-ATPase accessory subunit Ac45. *J. Cell Sci.* 111: 2999-3006.
4. Holthuis, J.C., et al. 1999. Biosynthesis of the vacuolar H<sup>+</sup>-ATPase accessory subunit Ac45 in *Xenopus* pituitary. *Eur. J. Biochem.* 262: 484-491.
5. Schoonderwoert, V.T. and Martens, G.J. 2002. Structural gene organization and evolutionary aspects of the V-ATPase accessory subunit Ac45. *Biochim. Biophys. Acta* 1574: 245-254.
6. Schoonderwoert, V.T., et al. 2002. The fate of newly synthesized V-ATPase accessory subunit Ac45 in the secretory pathway. *Eur. J. Biochem.* 269: 1844-1853.
7. Schoonderwoert, V.T. and Martens, G.J. 2002. Targeted disruption of the mouse gene encoding the V-ATPase accessory subunit Ac45. *Mol. Membr. Biol.* 1: 67-71.
8. Xu, J., et al. 2007. Structure and function of V-ATPases in osteoclasts: potential therapeutic targets for the treatment of osteolysis. *Histol. Histopathol.* 22: 443-454.

## CHROMOSOMAL LOCATION

Genetic locus: ATP6AP1 (human) mapping to Xq28.

## PRODUCT

ATP6AP1 (h4): 293T Lysate represents a lysate of human ATP6AP1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

ATP6AP1 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive ATP6AP1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.