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# V-ATPase D1 (h): 293T Lysate: sc-176665

## BACKGROUND

Vacuolar-type H<sup>+</sup>-ATPase (V-ATPase) is a multisubunit enzyme responsible for the acidification of eukaryotic intracellular organelles. V-ATPases pump protons against an electrochemical gradient, while F-ATPases reverse the process, 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, comprise the V-ATPase complex. 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. V-ATPase D1 (ATPase, H<sup>+</sup> transporting, lysosomal, V<sub>0</sub> subunit D1), also known as ATP6V0D1, P39, VATX, VMA6, ATP6D or VPATPD, is the D subunit of the V<sub>0</sub> domain. Expressed ubiquitously, V-ATPase D1 acts in concert with other V<sub>0</sub> subunits to catalytically acidify a variety of intracellular compartments, thereby synthesizing ATP to be used for vacuolar transport.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ATP6V0D1 (human) mapping to 16q22.1.

## PRODUCT

V-ATPase D1 (h): 293T Lysate represents a lysate of human V-ATPase D1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

V-ATPase D1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive V-ATPase D1 antibodies. Recommended use: 10-20 µl per lane.

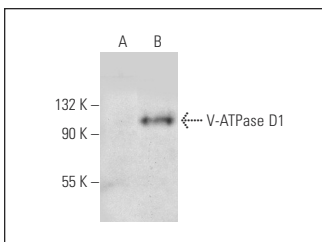
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

V-ATPase D1 (34-Z): sc-81887 is recommended as a positive control antibody for Western Blot analysis of enhanced human V-ATPase D1 expression in V-ATPase D1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## 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.

## DATA



V-ATPase D1 (34-Z): sc-81887. Western blot analysis of V-ATPase D1 expression in non-transfected: sc-117752 (A) and human V-ATPase D1 transfected: sc-176665 (B) 293T whole cell lysates.

## 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.

## 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.