

V-ATPase D1 (C-16): sc-69105

BACKGROUND

Vacuolar-type H⁺-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 V1 domain, which is responsible for ATP hydrolysis, and an integral V0 domain, which is responsible for proton translocation, comprise the V-ATPase complex. Nine subunits (A–H) make up the V1 domain and five subunits (A, D, C, C' and C'') make up the V0 domain. V-ATPase D1 (ATPase, H⁺ transporting, lysosomal, V0 subunit D1), also known as ATP6V0D1, P39, VATX, VMA6, ATP6D or VPATPD, is the D subunit of the V0 domain. Expressed ubiquitously, V-ATPase D1 acts in concert with other V0 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; Atp6v0d1 (mouse) mapping to 8 D3.

SOURCE

V-ATPase D1 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of V-ATPase D1 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-69105 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

V-ATPase D1 (C-16) is recommended for detection of V-ATPase D1 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).

V-ATPase D1 (C-16) is also recommended for detection of V-ATPase D1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for V-ATPase D1 siRNA (h): sc-63207, V-ATPase D1 siRNA (m): sc-63208, V-ATPase D1 shRNA Plasmid (h): sc-63207-SH, V-ATPase D1 shRNA Plasmid (m): sc-63208-SH, V-ATPase D1 shRNA (h) Lentiviral Particles: sc-63207-V and V-ATPase D1 shRNA (m) Lentiviral Particles: sc-63208-V.

Molecular Weight of V-ATPase D1: 40 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.



Try **V-ATPase D1 (D-4): sc-393322** or **V-ATPase D1 (34-Z): sc-81887**, our highly recommended monoclonal alternatives to V-ATPase D1 (C-16).