

# V-ATPase C1 (H-300): sc-20944

## 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, 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, compose 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. Like F-ATPase, V-ATPase most likely operates through a rotary mechanism. V-ATPase C is an auxiliary subunit with ubiquitous expression. The gene encoding human V-ATPase C maps to chromosome 8p22.3. V-ATPase D is another auxiliary subunit.

## CHROMOSOMAL LOCATION

Genetic locus: ATP6V1C1 (human) mapping to 8q22.3; Atp6v1c1 (mouse) mapping to 15 B3.1.

## SOURCE

V-ATPase C1 (H-300) is a rabbit polyclonal antibody raised against amino acids 83-382 of V-ATPase C1 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.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

V-ATPase C1 (H-300) is recommended for detection of V-ATPase C1 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), immunohistochemistry (including paraffin-embedded sections) (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 C1 (H-300) is also recommended for detection of V-ATPase C1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for V-ATPase C1 siRNA (h): sc-36789, V-ATPase C1 siRNA (m): sc-36790, V-ATPase C1 shRNA Plasmid (h): sc-36789-SH, V-ATPase C1 shRNA Plasmid (m): sc-36790-SH, V-ATPase C1 shRNA (h) Lentiviral Particles: sc-36789-V and V-ATPase C1 shRNA (m) Lentiviral Particles: sc-36790-V.

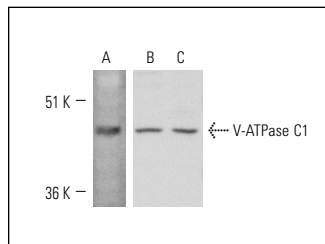
Molecular Weight of V-ATPase C1: 42 kDa.

Positive Controls: rat brain extract: sc-2392, mouse kidney extract: sc-2255 or HeLa whole cell lysate: sc-2200.

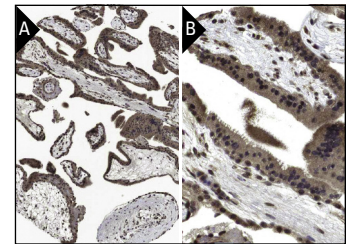
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



Western blot analysis of V-ATPase C1 expression in rat brain tissue extract (A, B) and mouse kidney (C) tissue extracts. Antibodies tested include V-ATPase C1 (H-300): sc-20944 (A) and V-ATPase C1 (S-20): sc-21213 (B, C).



V-ATPase C1 (H-300): sc-20944. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic and nuclear staining of trophoblastic cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

## 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.



Try **V-ATPase C1 (G-5): sc-271077** or **V-ATPase C1 (H-5): sc-166848**, our highly recommended monoclonal alternatives to V-ATPase C1 (H-300).