

# V-ATPase H (H-300): sc-20950

## 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. The H subunit of V-ATPase, also designated SDF is comprised of two polypeptides derived from the same gene. This regulatory subunit plays a critical role in the functional coupling of ATP hydrolysis activity to proton transport in the V-ATPase pump.

## CHROMOSOMAL LOCATION

Genetic locus: ATP6V1H (human) mapping to 8q11.23; Atp6v1h (mouse) mapping to 1 A1.

## SOURCE

V-ATPase H (H-300) is a rabbit polyclonal antibody raised against amino acids 184-483 mapping at the C-terminus of V-ATPase H 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 H (H-300) is recommended for detection of V-ATPase H 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 H (H-300) is also recommended for detection of V-ATPase H in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for V-ATPase H siRNA (h): sc-36801, V-ATPase H siRNA (m): sc-36802, V-ATPase H shRNA Plasmid (h): sc-36801-SH, V-ATPase H shRNA Plasmid (m): sc-36802-SH, V-ATPase H shRNA (h) Lentiviral Particles: sc-36801-V and V-ATPase H shRNA (m) Lentiviral Particles: sc-36802-V.

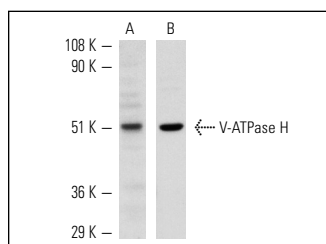
Molecular Weight of V-ATPase H: 50/57 kDa.

Positive Controls: V-ATPase H (m): 293T Lysate: sc-124526, SK-N-SH cell lysate: sc-2410 or rat kidney extract: sc-2394.

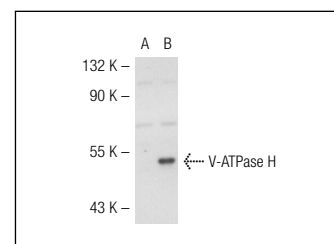
## RECOMMENDED SECONDARY REAGENTS

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 H expression in mouse brain tissue extract (A,B). Antibodies tested include V-ATPase H (H-300): sc-20950 (A) and V-ATPase H (N-20): sc-21228 (B).



V-ATPase H (H-300): sc-20950. Western blot analysis of V-ATPase H expression in non-transfected: sc-117752 (A) and mouse V-ATPase H transfected: sc-124526 (B) 293T whole cell lysates.

## 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 **V-ATPase H (C-8): sc-166227** or **V-ATPase H (E-10): sc-271186**, our highly recommended monoclonal alternatives to V-ATPase H (H-300).