SANTA CRUZ BIOTECHNOLOGY, INC.

V-ATPase C1 (S-20): sc-21213

BACKGROUND

Vacuolar-type H^+-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_1 domain, which is responsible for ATP hydrolysis, and an integral V_0 domain, which is responsible for proton translocation, compose V-ATPase. Nine subunits (A-H) make up the V_1 domain and five subunits (a, d, c, c' and c'') make up the V0 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 8q22.3. 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 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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.

Blocking peptide available for competition studies, sc-21213 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 (S-20) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

V-ATPase C1 (S-20) 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.

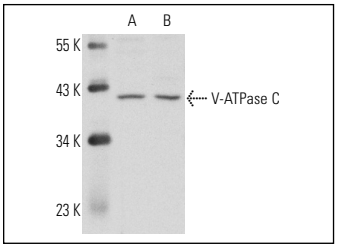
Molecular Weight of V-ATPase C1: 42 kDa.

Positive Controls: rat brain extract: sc-2392, NIH/3T3 whole cell lysate: sc-2210 or mouse kidney extract: sc-2255.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



V-ATPase C (S-20): sc-21213. Western blot analysis of V-ATPase C expression in rat brain (**A**) and mouse kidney (**B**) tissue extracts.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

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 (S-20).