

# V-ATPase C2 (C-19): sc-69100

## 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. The V-ATPase is comprised of a peripheral V1 domain, which is responsible for ATP hydrolysis, and an integral V0 domain, which is responsible for proton translocation. Nine subunits (A–H) make up the V1 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, coupling ATP hydrolysis by the V1 domain to proton translocation by the V0 domain. V-ATPase C2, also known as ATP6V1C2, ATP6C2 or VMA5, is a member of the V-ATPase C subunit family and is specifically expressed in lung and kidney. The V-ATPase C subunit is required for the proper assembly of the catalytic portion of the V-ATPase enzyme and it may have a specific catalytic function.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ATP6V1C2 (human) mapping to 2p25.1; Atp6v1c2 (mouse) mapping to 12 A1.1.

## SOURCE

V-ATPase C2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of V-ATPase C2 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-69100 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

V-ATPase C2 (C-19) is recommended for detection of V-ATPase C2 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 C2 (C-19) is also recommended for detection of V-ATPase C2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for V-ATPase C2 siRNA (h): sc-63205, V-ATPase C2 siRNA (m): sc-63206, V-ATPase C2 shRNA Plasmid (h): sc-63205-SH, V-ATPase C2 shRNA Plasmid (m): sc-63206-SH, V-ATPase C2 shRNA (h) Lentiviral Particles: sc-63205-V and V-ATPase C2 shRNA (m) Lentiviral Particles: sc-63206-V.

Molecular Weight of V-ATPase C2: 42 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.