



H⁺/K⁺ ATPase β (V-14): sc-84306

BACKGROUND

The gastric H⁺/K⁺ ATPase exists as a heterodimer consisting of an α and a β subunit that work in tandem to transport protons across plasma membranes. H⁺/K⁺ ATPase β, also known as ATP4B or ATP6B, is a 291 amino acid single-pass type II membrane protein that functions as the β subunit of the H⁺/K⁺ ATPase heterodimer. Working with the α subunit, H⁺/K⁺ ATPase β effectively catalyzes the hydrolysis of ATP coupled with the exchange of H⁺ and K⁺ ions across the plasma membrane and plays an essential role in gastric acid secretion. The gene encoding H⁺/K⁺ ATPase β maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome. Trisomy 13, also known as Patau syndrome, is deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

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STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: (human) mapping to 13q34.

SOURCE

H⁺/K⁺ ATPase β (V-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an extracellular domain of H⁺/K⁺ ATPase β of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84306 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

H⁺/K⁺ ATPase β (V-14) is recommended for detection of H⁺/K⁺ ATPase β 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).

Suitable for use as control antibody for H⁺/K⁺ ATPase β siRNA (h): sc-75217, H⁺/K⁺ ATPase β siRNA (m): sc-145846, H⁺/K⁺ ATPase β shRNA Plasmid (h): sc-75217-SH, H⁺/K⁺ ATPase β shRNA Plasmid (m): sc-145846-SH, H⁺/K⁺ ATPase β shRNA (h) Lentiviral Particles: sc-75217-V and H⁺/K⁺ ATPase β shRNA (m) Lentiviral Particles: sc-145846-V.

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) 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.

RESEARCH USE

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