

H⁺/K⁺ ATPase β (h): 293 Lysate: sc-114330

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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CHROMOSOMAL LOCATION

Genetic locus: ATP4B (human) mapping to 13q34.

PRODUCT

H⁺/K⁺ ATPase β (h): 293 Lysate represents a lysate of human H⁺/K⁺ ATPase β transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

H⁺/K⁺ ATPase β (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive H⁺/K⁺ ATPase β antibodies. Recommended use: 10-20 µl per lane.

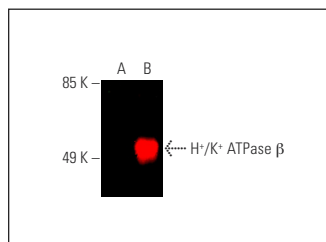
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

H⁺/K⁺ ATPase β (C-4): sc-374094 is recommended as a positive control antibody for Western Blot analysis of enhanced human H⁺/K⁺ ATPase β expression in H⁺/K⁺ ATPase β transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

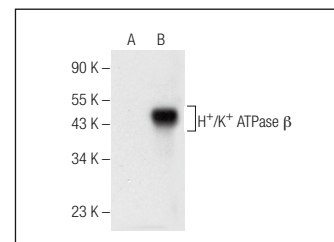
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



H⁺/K⁺ ATPase β (C-4): sc-374094. Near-infrared western blot analysis of H⁺/K⁺ ATPase β expression in non-transfected: sc-110760 (A) and human H⁺/K⁺ ATPase β transfected: sc-114330 (B) 293 whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.



H⁺/K⁺ ATPase β (B-5): sc-376393. Western blot analysis of H⁺/K⁺ ATPase β expression in non-transfected: sc-110760 (A) and human H⁺/K⁺ ATPase β transfected: sc-114330 (B) 293 whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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