

Barttin (m): 293T Lysate: sc-125028

BACKGROUND

The BSND gene encodes Barttin, a protein comprised of two putative transmembrane α helices. Barttin expression is detected in the thin limb and thick ascending limb of the loop of Henle in the kidney, and in the dark cells of the inner ear. The BSND gene is mutated in Bartter syndrome, a genetic disease characterized by hypokalemia, metabolic alkalosis and normal to low blood pressure, which occurs with sensorineural deafness, irreversible hearing loss due to cochlear sensorineural or cochlear nerve damage. Barttin acts as an essential β subunit for CLCKNA and CLCKNB chloride channels, with which it co-localizes in basolateral membranes of renal tubules and of potassium-secreting epithelia of the inner ear. Mutations in either CLCKNB or Barttin compromise currents through heteromeric channels that can be stimulated further by mutating a proline-tyrosine (PY) motif on Barttin. Heteromers formed by chloride channels and Barttin are essential for renal salt reabsorption and potassium recycling in the inner ear.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Bsnd (mouse) mapping to 4 C7.

PRODUCT

Barttin (m): 293T Lysate represents a lysate of mouse Barttin transfected 293T cells and is provided as 100 μg protein in 200 μl SDS-PAGE buffer.

APPLICATIONS

Barttin (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Barttin antibodies. Recommended use: 10-20 μl per lane.

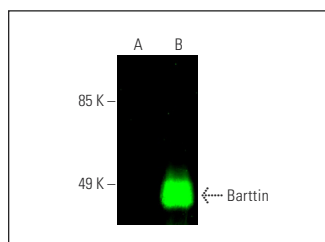
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Barttin (A-1): sc-271867 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Barttin expression in Barttin transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

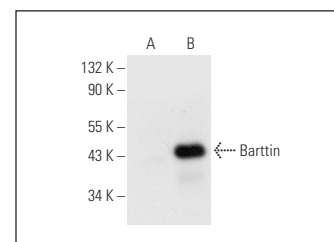
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



Barttin (A-1): sc-271867. Near-infrared western blot analysis of Barttin expression in non-transfected: sc-117752 (A) and mouse Barttin transfected: sc-125028 (B) 293T whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgG κ BP-CFL 680: sc-516180.



Barttin (A-1): sc-271867. Western blot analysis of Barttin expression in non-transfected: sc-117752 (A) and mouse Barttin transfected: sc-125028 (B) 293T 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.