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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

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- Trockeneiszuschlag
- Gefahrgutzuschlag
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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

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

1. Estevez, R., Boettger, T., Stein, V., Birkenhager, R., Otto, E., Hildebrandt, F. and Jentsch, T.J. 2001. Barttin is a Cl^- channel β subunit crucial for renal Cl^- reabsorption and inner ear K^+ secretion. Nature 414: 558-561.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606412. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Miyamura, N., Matsumoto, K., Taguchi, T., Tokunaga, H., Nishikawa, T., Nishida, K., Toyonaga, T., Sakakida, M. and Araki, E. 2003. Atypical Bartter syndrome with sensorineural deafness with G47R mutation of the β subunit for ClC-Ka and ClC-Kb chloride channels, Barttin. J. Clin. Endocrinol. Metab. 88: 781-786.
4. Wolf, K., Meier-Meitinger, M., Bergler, T., Castrop, H., Vitzthum, H., Riegger, G.A., Kurtz, A. and Kramer, B.K. 2003. Parallel downregulation of chloride channel CLC-K1 and Barttin mRNA in the thin ascending limb of the rat nephron by furosemide. Pflugers Arch. 446: 665-671.
5. Liantonio, A., Pusch, M., Picollo, A., Guida, P., De Luca, A., Pierno, S., Fracchiolla, G., Loiodice, F., Tortorella, P. and Conte Camerino, D. 2004. Investigations of pharmacologic properties of the renal CLC-K1 chloride channel co-expressed with Barttin by the use of 2-(p-Chlorophenoxy) propionic acid derivatives and other structurally unrelated chloride channels blockers. J. Am. Soc. Nephrol. 15: 13-20.
6. Embark, H.M., Bohmer, C., Palmada, M., Rajamanickam, J., Wyatt, A.W., Wallisch, S., Capasso, G., Waldegger, P., Seyberth, H.W., Waldegger, S. and Lang, F. 2004. Regulation of CLC-Ka/Barttin by the ubiquitin ligase NEDD4-2 and the serum- and glucocorticoid-dependent kinases. Kidney Int. 66: 1918-1925.
7. Lang, F., Capasso, G., Schwab, M. and Waldegger, S. 2005. Renal tubular transport and the genetic basis of hypertensive disease. Clin. Exp. Nephrol. 9: 91-99.
8. Briet, M., Vargas-Poussou, R., Lourdel, S., Houillier, P. and Blanchard, A. 2006. How Bartter's and Gitelman's syndromes, and Dent's disease have provided important insights into the function of three renal chloride channels: ClC-Ka/b and ClC-5. Nephron Physiol. 103: 7-13.

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.

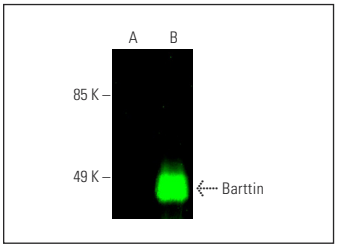
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

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).

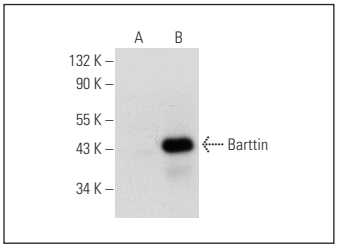
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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



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-IgGκ 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.