



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### 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](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

# ROM-K (m): 293T Lysate: sc-123254

## BACKGROUND

ROM-K, an ATP-sensitive inward rectifying K<sup>+</sup> channel (also designated KIR1.1), is a member of the Kir family of K<sup>+</sup> channels that controls renal K<sup>+</sup> secretion. These K<sup>+</sup> channels more readily conduct an inward current rather than an outward current and are constitutively open. Inwardly rectifying K<sup>+</sup> channels are a complex of four Kir (Kir1-6) subunits. ROM-K is activated by protein kinase A, and its activity is regulated by phosphatidylinositol 4,5-bisphosphate and intracellular pH. Alternative splicing of ROM-K mRNA yields various isoforms which are differentially expressed in nephrons of the mammalian kidney. Mutations in the ROM-K gene are linked to antenatal Bartter syndrome, an autosomal recessive disorder of renal electrolyte transport.

## REFERENCES

1. Hebert, S.C. 1995. An ATP-regulated, inwardly rectifying potassium channel from rat kidney (ROMK). *Kidney Int.* 48: 1010-1016.
2. Boim, M.A., et al. 1995. ROMK inwardly rectifying ATP-sensitive K<sup>+</sup> channel. II. Cloning and distribution of alternative forms. *Am. J. Physiol.* 268: F1132-F1140.
3. Kondo, C., et al. 1996. Cloning and functional expression of a novel isoform of ROMK inwardly rectifying ATP-dependent K<sup>+</sup> channel, ROMK6 (Kir1.1f). *FEBS Lett.* 399: 122-126.
4. Zolotnitskaya, A., et al. 1999. Developmental expression of ROMK in rat kidney. *Am. J. Physiol.* 276: F825-F836.
5. Flagg, T.P., et al. 1999. A mutation linked with Bartter's syndrome locks Kir 1.1a (ROMK1) channels in a closed state. *J. Gen. Physiol.* 114: 685-700.
6. Liou, H.H., et al. 1999. Regulation of ROMK1 channel by protein kinase A via a phosphatidylinositol 4,5-bisphosphate-dependent mechanism. *Proc. Natl. Acad. Sci. USA* 96: 5820-5825.
7. Loussouarn, G., et al. 2000. Structure and dynamics of the pore of inwardly rectifying K(ATP) channels. *J. Biol. Chem.* 275: 1137-1144.
8. Leung, Y.M., et al. 2000. Phosphatidylinositol 4,5-bisphosphate and intracellular pH regulate the ROMK1 potassium channel via separate but inter-related mechanisms. *J. Biol. Chem.* 275: 10182-10189.

## CHROMOSOMAL LOCATION

Genetic locus: Kcnj1 (mouse) mapping to 9 A4.

## PRODUCT

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

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

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

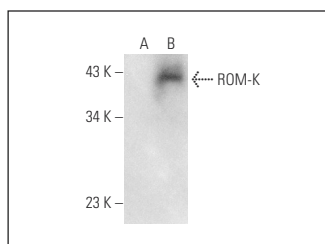
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ROM-K (D-3): sc-393189 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ROM-K expression in ROM-K 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



ROM-K (D-3): sc-393189. Western blot analysis of ROM-K expression in non-transfected: sc-117752 (A) and mouse ROM-K transfected: sc-123254 (B) 293T whole cell lysates.

## RESEARCH USE

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