



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Anti-NKCC2 Antibody

Rabbit Anti-Rat NKCC2 Polyclonal  
Catalog No. SPC-401



Discovery through partnership | Excellence through quality

## Overview

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### Product Name

NKCC2 Antibody

### Description

Rabbit Anti-Rat NKCC2 Polyclonal

### Species Reactivity

Human, Mouse, Rat

### Applications

WB, Immunohistochemistry

### Antibody Dilution

WB (1:1000); optimal dilutions for assays should be determined by the user.

### Host Species

Rabbit

### Immunogen Species

Rat

### Immunogen

Produced against a synthetic peptide mapping to a segment (amino acids 33-55) of the N-terminal tail of rat NKCC2 (antibody designation L224).

### Concentration

1 mg/ml

### Conjugates

Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, HRP, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated

## Properties

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### Storage Buffer

PBS, 50% glycerol, 0.09% sodium azide

### Storage Temperature

-20°C

### Shipping Temperature

Blue Ice or 4°C

### Purification

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Protein A purified

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### Clonality

Polyclonal

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### Specificity

Detects ~160kDa.

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### Cite This Product

Rabbit Anti-Rat NKCC2 Polyclonal (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SPC-401)

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### Certificate Of Analysis

1 µg/ml of SPC-401 was sufficient for detection of NKCC2 in 10 µg of rat kidney tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

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## Biological Description

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### Alternative Names

SLC12A1 Antibody, sodium potassium chloride cotransporter 2 Antibody, sodium-potassium-chloride cotransporter isoform 2 Antibody, BSC1 Antibody, MBSC1 Antibody, Na-K-2Cl cotransporter Antibody, NKCC2A variant A Antibody, RBSC Antibody, Antibody

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### Research Areas

Cancer, Ion Pumps/Transporters, Neuroscience, Pumps/Transporters

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### Cellular Localization

Membrane

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### Accession Number

NP\_062007

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### Gene ID

25065

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### Swiss Prot

Q5PQV1

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### Scientific Background

NKCC2, a kidney-specific member of the cation chloride co-transporter family SLC12, facilitates transport of sodium, potassium, and chloride ions from the lumen of the renal thick ascending limb into the cell (1, 2). Transport of sodium dilutes the luminal fluid, decreasing its osmolality creating an osmotic driving force for water reabsorption in the connecting tubule and cortical collecting duct under the influence of the hormone vasopressin. NKCC2 is found on the apical surface of the thick ascending limb of the loop of Henle and is blocked by loop diuretics such as furosemide (1).

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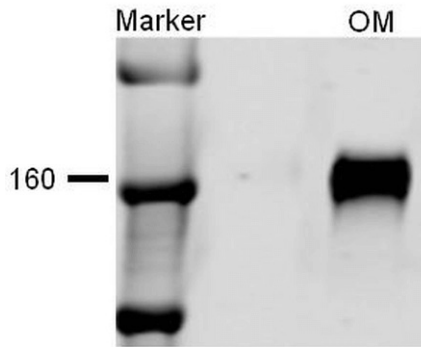
### References

1. Caceres P.S., Ares G.R., and Ortiz P.A. (2009) J Biol Chem. 284(37): 24965-24971.
  2. Xue H., et al. (2009) Neurogastroentrol Motil. 21(10): 1068-1089.
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## Product Images

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Western blot analysis of Rat kidney tissue lysates showing detection of NKCC2 protein using Rabbit Anti-NKCC2 Polyclonal Antibody (SPC-401). Primary Antibody: Rabbit Anti-NKCC2 Polyclonal Antibody (SPC-401) at 1:1000.



## Product Citations (7)

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### Western Blot

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#### **Inhibition of Mitochondrial Complex-1 Prevents the Downregulation of NKCC2 and ENaC? in Obstructive Kidney Disease.**

Zhang, Y. et al. (2015) Sci Rep. 5:12480.

**PubMed ID:** 26207612 **Reactivity:** Mouse **Applications:** Western Blot

#### **Novel Mechanisms of Sodium Retention in Obesity: Phosphorylation of NKCC2 and Regulation of SPAK/OSR1 by AMPK.**

Davies, M. R. P. et al. (2014) Am J Physiol. 307(1):F96-F106.

**PubMed ID:** 24808538 **Reactivity:** Mouse **Applications:** Western Blot

#### **Comparative Analysis of Na-K-ATPase Protein Expression Levels in the Outer Medullary Portion of the Kangaroo Rat and the Sprague Dawley Rat Kidney.**

Armstrong, T.M. (2013) University of Arizona Dissertation

**PubMed ID:** **Reactivity:** Rat **Applications:** Western Blot

### Immunohistochemistry

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#### **Soluble (pro)renin receptor via $\beta$ -catenin enhances urine concentration capability as a target of liver X receptor.**

Lu, X. et al. (2016) Proc Natl Acad Sci U S A. [Epub ahead of print]

**PubMed ID:** 26984496 **Reactivity:** Rat **Applications:** Immunohistochemistry

#### **Inhibition of Mitochondrial Complex-1 Prevents the Downregulation of NKCC2 and ENaC? in Obstructive Kidney Disease.**

Zhang, Y. et al. (2015) Sci Rep. 5:12480.

**PubMed ID:** 26207612 **Reactivity:** Mouse **Applications:** Immunohistochemistry

#### **Novel Mechanisms of Sodium Retention in Obesity: Phosphorylation of NKCC2 and Regulation of SPAK/OSR1 by AMPK.**

Davies, M. R. P. et al. (2014) Am J Physiol. 307(1):F96-F106.

**PubMed ID:** 24808538 **Reactivity:** Mouse **Applications:** Immunohistochemistry

### Other Citations

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#### **Regulation of the Na<sup>+</sup>-K<sup>+</sup>-2Cl<sup>-</sup> cotransporter (NKCC2) by cGMP / cGKI after furosemide administration.**

Limmer, F. et al. (2015) FEBS J. 282(19):3786-98.

**PubMed ID:** 26183401 **Reactivity:** Mouse **Applications:** Western Blot

## Reviews

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Based on validation through cited publications.



**StressMarq Biosciences**

June 15, 2016: