

# Anti-NCC (Slc12a3) Catalog# SPC-402D

Size: 100µg

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This product is for *in vitro* research use only and is not intended for use in humans or animals

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Product	Rabbit anti-NCC (Slc12a3) polyclonal antibody
Clone	N/A
Immunogen	Produced against a synthetic peptide mapping to a segment of rat NCC (amino acids 74-95, NP_062218) mapping to the N-terminal tail.
Host and Subclass	Rabbit
Cited Applications	WB, IF
Specificity	Detects ~160kDa.
Species cross-reactivity	Rat, Mouse, Human
Format	Affinity Purified in PBS, 50% glycerol and 0.09% sodium azide.
Concentration and Working dilution	1mg/mL 1:1000 (WB)
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

### Scientific Background

NCC, a thiazide-sensitive NaCl co-transporter, is found on the apical membrane of the distal convoluted tubule, where it is the principal mediator of Na<sup>+</sup> and Cl<sup>-</sup> reabsorption in this segment of the nephron. It is activated by phosphorylation, and has been implicated

in renal NaCl and K<sup>+</sup> homeostasis (1). Regulation of NCC expression and phosphorylation by dietary NaCl restriction appears to involve SGK1(1).

In experiments with angiotensin II-infused mice, increased sensitivity to Ang II may involved over-activity of NCC (2). Therefore, NCC is the target of thiazide diuretics used in the treatment of hypertension (1).

Molecular experiments have also shown that NCC has been detected in the lens cortex, core and fiber cells of a rat (3).

### Selected References

1. Vallon V., Schroth J, Lang F, Kuhl D and Uchida S. (2009) *Am J Physiol Renal Physiol.* 297(3): F704-712.
2. Tiwari S., et al. (2009) *Am J Nephrol.* 30(6): 554-562.
3. Chee K.N., Vorontsova I., Lim J.C., Kistler J. and Donaldson P.J. (2010) *Mol Vis.* 16:800-812.

### Certificate of Analysis

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1 µg/mL of SPC-402 was sufficient for detection of NCC3 in 10µg of rat kidney tissue lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.  
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# Material Safety Data Sheet

## Anti-NCC (Polyclonal Antibody) SPC-402

This product is for *in vitro* research use only and is not intended for use in humans or animals

The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

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### Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
Sodium Azide	2628-22-8	0.01

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### Physical Data

This product consists of rabbit immunoglobulin in 50% glycerol and 0.01% sodium azide shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

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### Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

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### Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

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### Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

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### Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

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### First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

Authorized: StressMarq Biosciences Inc.  
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