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Anti-NCC (Thiazide sensitive NaCl cotransporter) (Thr53) Antibody

Our Anti-NCC (Thiazide sensitive NaCl cotransporter) (Thr53) rabbit polyclonal phosphospecific prima

Catalog # AN1462

Specification

Anti-NCC (Thiazide sensitive NaCl cotransporter) (Thr53) Antibody - Product Information

Application	**WB**
Primary Accession	P59158
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**110694**

Anti-NCC (Thiazide sensitive NaCl cotransporter) (Thr53) Antibody - Additional Information

Gene ID **20497**

Other Names

FLJ96318 antibody, Na Cl cotransporter antibody, Na Cl symporter antibody, Na-Cl symporter antibody, NaCl electroneutral thiazide sensitive cotransporter antibody, NCCT antibody, SLC12A3 antibody, S12A3_HUMAN antibody, slc12a3 antibody, Solute carrier family 12 (sodium/chloride transporters) member 3 antibody, Solute carrier family 12 member 3 antibody, Thiazide sensitive Na Cl cotransporter antibody, Thiazide sensitive sodium chloride cotransporter antibody, Thiazide-sensitive sodium-chloride cotransporter antibody, TSC antibody

Target/Specificity

The thiazide-sensitive sodium chloride cotransporter, NCC, is the major NaCl transport protein in the distal convoluted tubule (DCT) and plays an important role in maintaining blood pressure (Rosenbaek et al., 2014, Feng et al., 2015). Phosphorylation of NCC at Thr-53, Thr-58, and Ser-71 is an essential mediator of NCC function (Rosenbaek et al., 2014). NCC is constitutively cycled to the plasma membrane, and upon stimulation, it can be phosphorylated to both increase NCC activity and decrease NCC endocytosis, together increasing NaCl transport in the DCT (Feng et al., 2015).

Dilution

WB~~1:1000

Format

Antigen Affinity Purified from Pooled Serum

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti-NCC (Thiazide sensitive NaCl cotransporter) (Thr53) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

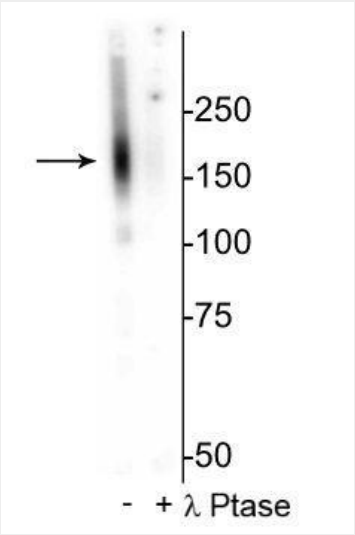
Shipping
Blue Ice

Anti-NCC (Thiazide sensitive NaCl cotransporter) (Thr53) Antibody - Protocols

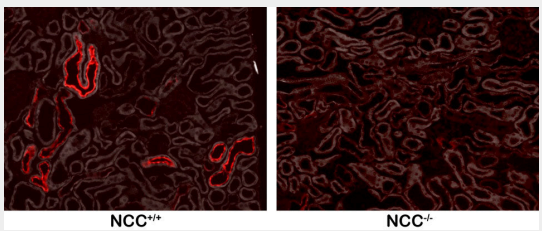
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-NCC (Thiazide sensitive NaCl cotransporter) (Thr53) Antibody - Images



Western blot of mouse kidney lysate showing specific immunolabeling of the ~160 kDa NCC protein phosphorylated at Thr53 in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is completely eliminated by blot treatment with lambda phosphatase (λ-Ptase, 1200 units for 30 min).



Immunostaining of PFA perfused frozen kidney sections from WT and NCC KO mice showing specific labeling of the NCC protein phosphorylated at Thr53 (cat. p1311-53, red, 1:100,000) on the left and the absence of staining in the KO on the right. (Image courtesy of Lauren Miller, Ellison Lab, OHSU.)

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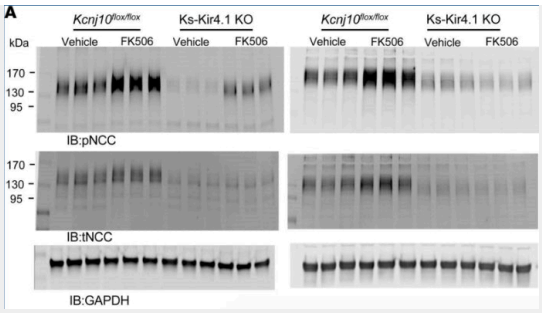

Two Western blots show the abundance of pNCCT53 (cat. p1311-53, 1:200) and tNCC in male Kcnj10fl/fl mice and in Ks-Kir4.1–KO mice treated with vehicle (control) and FK506 (0.75 mg/kg BW). Image from publication CC-BY-4.0. PMID: 36821372

Anti-NCC (Thiazide sensitive NaCl cotransporter) (Thr53) Antibody - Background

The thiazide-sensitive sodium chloride cotransporter, NCC, is the major NaCl transport protein in the distal convoluted tubule (DCT) and plays an important role in maintaining blood pressure (Rosenbaek et al., 2014, Feng et al., 2015). Phosphorylation of NCC at Thr-53, Thr-58, and Ser-71 is an essential mediator of NCC function (Rosenbaek et al., 2014). NCC is constitutively cycled to the plasma membrane, and upon stimulation, it can be phosphorylated to both increase NCC activity and decrease NCC endocytosis, together increasing NaCl transport in the DCT (Feng et al., 2015).