



## NKCC1 (N-16): *sc-21545*

### BACKGROUND

Na-K-Cl cotransporters (NKCC) are channel proteins that aid in the transcellular movement of chloride across both secretory and absorptive epithelia (1,2). The 170 kDa NKCC1 is expressed in muscle cells, neurons, and red blood cells (1-3). In the basolateral membrane of secretory epithelia, NKCC1 mediates active chloride secretion (3). The gene encoding human NKCC1 maps to chromosome 5q23.3 (2). In mice, disruption of the NKCC1 gene leads to deafness and impaired balance (4). NKCC2 is specifically expressed in the kidney where it mediates active reabsorption of sodium chloride in the thick ascending limb of the loop of Henle (3). NKCC2 is sensitive to the clinically important diuretics furosemide and bumetanide (3). The gene encoding human NKCC2 maps to chromosome 15q15-q21 and mutations in this gene lead to Bartter's syndrome, an inherited hypokalaemic alkalosis (3,5). NCCT is a thiazide-sensitive Na-Cl cotransporter that is primarily expressed in the distal convoluted tubule of the kidney where it accounts for a significant fraction of net renal sodium reabsorption (5). The gene for human NCCT map to chromosome 16q13 (6). Mutations in the gene encoding NCCT cause Gitelman's syndrome, a subset of Bartter's syndrome (5,7).

### SOURCE

NKCC1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the amino terminus of NKCC1 of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS containing 0.1% sodium azide and 0.2% gelatin.

Blocking peptide is available for competition studies (*sc-21545 P*) (100 µg peptide in 0.5 ml PBS with 0.1% sodium azide and 100 µg BSA).

### SPECIFICITY

NKCC1 (N-16) is recommended for the detection of NKCC1 of mouse, rat and human origin by Western blotting and ELISA.

Recommended dilution range for Western blot analysis: 1:100–1:1000. Recommended starting dilution: 1:100.

### STORAGE

Store at 4° C, do not freeze; stable for one year from the date of shipment.

### RESEARCH USE

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

### REFERENCES

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