

Basic Information

Product Name	Anti-NKCC2/SLC12A1 Antibody	
Gene Name	SLC12A1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat, monkey	
Tested Application	WB, IHC, IF	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human SLC12A1, different from the related mouse sequence by two amino acids, and from the related rat sequence by four amino acids.	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	150-290 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunofluorescence (IF): 1:50-400 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

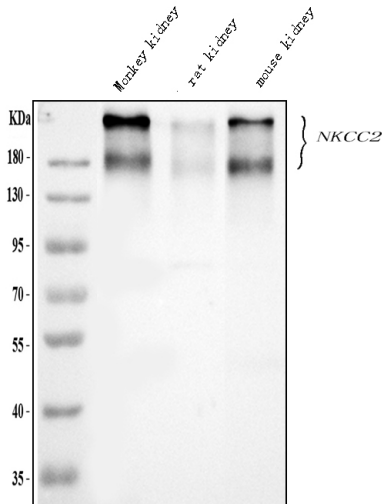
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Solute carrier family 12 (sodium/potassium/chloride transporters), member 1, also called NKCC2 is specifically found in cells of the thick ascending limb of the loop of Henle in nephrons, the basic functional units of the kidney. This gene is mapped to 15q21.1. This gene encodes a kidney-specific sodium-potassium-chloride cotransporter that is expressed on the luminal membrane of renal epithelial cells of the thick ascending limb of Henle's loop and the macula densa. It plays a key role in concentrating urine and accounts for most of the NaCl resorption. It is sensitive to such diuretics as furosemide and bumetanide. Some Bartter-like syndromes result from defects in this gene. This gene plays a vital role in the regulation of ionic balance and cell volume.

Selected Validation Data



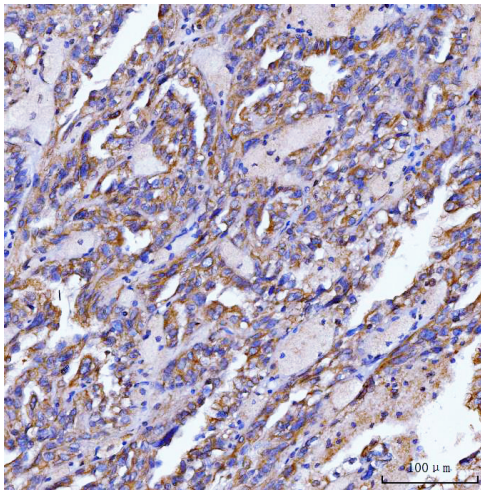
Western blot analysis of NKCC2/SLC12A1 using anti-NKCC2/SLC12A1 antibody (PB9392). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: monkey kidney tissue lysates,

Lane 2: rat kidney tissue lysates,

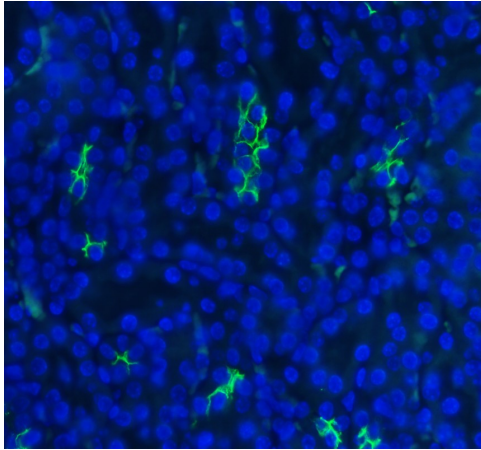
Lane 3: mouse kidney tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-NKCC2/SLC12A1 antigen affinity purified polyclonal antibody (PB9392) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for NKCC2/SLC12A1 at approximately 150-290 kDa. The expected band size for NKCC2/SLC12A1 is at 121 kDa.



IHC analysis of NKCC2/SLC12A1 using anti-NKCC2/SLC12A1 antibody (PB9392).

NKCC2/SLC12A1 was detected in a paraffin-embedded section of human renal cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-NKCC2/SLC12A1 Antibody (PB9392) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of NKCC2/SLC12A1 using anti-NKCC2/SLC12A1 antibody (PB9392).

NKCC2/SLC12A1 was detected in a paraffin-embedded section of mouse kidney tissue. The tissue section was incubated with rabbit anti-NKCC2/SLC12A1 Antibody (PB9392) at a dilution of 1:100. DyLight®488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).