

Anti-NKCC1/SLC12A2 Antibody Picoband®

Catalog Number: A03603

About SLC12A2

Solute carrier family 12(sodium/potassium/chloride transporters), member 2, also known as NKCC1, is widely distributed throughout the body, especially in organs that secrete fluids, called exocrine glands. By fluorescence in situ hybridization, this gene is mapped to chromosome 5q23.3. The protein encoded by this gene mediates sodium and chloride transport and reabsorption. The encoded protein is a membrane protein and is important in maintaining proper ionic balance and cell volume. This protein is phosphorylated in response to DNA damage. Three transcript variants encoding two different isoforms have been found for this gene.

Overview

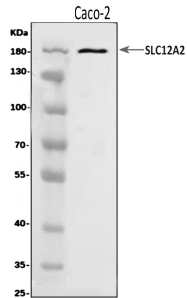
Product Name	Anti-NKCC1/SLC12A2 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-NKCC1/SLC12A2 Antibody Picoband® catalog # A03603. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P55011

Technical Details

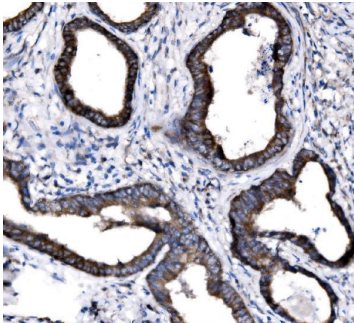
Immunogen	E.coli-derived human NKCC1/SLC12A2 recombinant protein (Position: K889-K943).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human, Rat Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

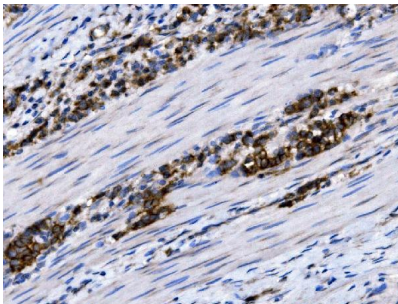
Anti-NKCC1/SLC12A2 Antibody Picoband® (A03603) Images



Western blot analysis of NKCC1/SLC12A2 using anti-NKCC1/SLC12A2 antibody (A03603). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Caco-2 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-NKCC1/SLC12A2 antigen affinity purified polyclonal antibody (Catalog # A03603) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for NKCC1/SLC12A2 at approximately 180 kDa. The expected band size for NKCC1/SLC12A2 is at 180 kDa.

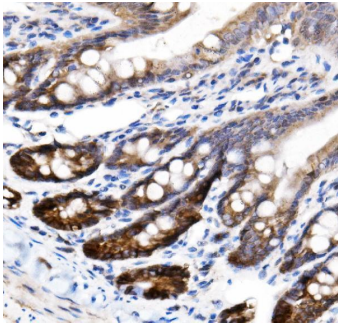


IHC analysis of NKCC1/SLC12A2 using anti-NKCC1/SLC12A2 antibody (A03603). NKCC1/SLC12A2 was detected in a paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NKCC1/SLC12A2 Antibody (A03603) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

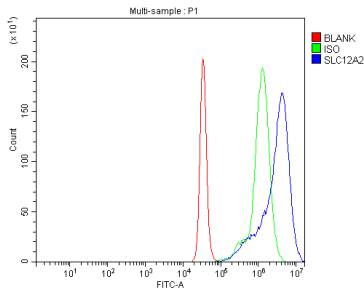


IHC analysis of NKCC1/SLC12A2 using anti-NKCC1/SLC12A2 antibody (A03603). NKCC1/SLC12A2 was detected in a paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NKCC1/SLC12A2 Antibody (A03603) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IHC analysis of NKCC1/SLC12A2 using anti-NKCC1/SLC12A2 antibody (A03603). NKCC1/SLC12A2 was detected in a paraffin-embedded section of rat intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was



blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-NKCC1/SLC12A2 Antibody (A03603) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



Flow Cytometry analysis of K562 cells using anti-NKCC1/SLC12A2 antibody (A03603). Overlay histogram showing K562 cells stained with A03603 (Blue line). The cells were fixed with 4% paraformaldehyde and blocked with 10% normal goat serum. And then incubated with rabbit anti-NKCC1/SLC12A2 Antibody (A03603, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-NKCC1/SLC12A2 Antibody

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