

CLCNKA/CLCNKB Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP6358a**Specification**

CLCNKA/CLCNKB Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [P51801](#)**CLCNKA/CLCNKB Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 1188**Other Names**

Chloride channel protein CIC-Kb, Chloride channel Kb, CIC-K2, CLCNKB

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP6358a](/product/products/AP6358a) was selected from the C-term region of human CLCNKB. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CLCNKA/CLCNKB Antibody (C-term) Blocking peptide - Protein Information**Name** CLCNKB {ECO:0000303|PubMed:18310267, ECO:0000312|HGNC:HGNC:2027}**Function**

Anion-selective channel permeable to small monovalent anions with ion selectivity for chloride > bromide > nitrate > iodide (PubMed: [11734858](http://www.uniprot.org/citations/11734858), PubMed: [12111250](http://www.uniprot.org/citations/12111250)). Forms a homodimeric channel where each subunit has its own ion conduction pathway. May conduct double-barreled currents controlled by two types of gates, two fast gates that control each subunit independently and a slow common gate that opens and shuts off both subunits simultaneously (PubMed: [11734858](http://www.uniprot.org/citations/11734858), PubMed: [12111250](http://www.uniprot.org/citations/12111250), PubMed: [16849430](http://www.uniprot.org/citations/16849430), PubMed: [18776122](http://www.uniprot.org/citations/18776122), PubMed: [19646679](http://www.uniprot.org/citations/19646679)). Assembles

with the regulatory subunit BSND/Barttin for sorting at the basolateral plasma membrane domain and functional switch to the ion conducting state. CLCNKB:BSND channels display mostly a linear current- voltage relationship controlled by common gate (PubMed:11734858, PubMed:12111250, PubMed:16849430, PubMed:18776122, PubMed:19646679). Mediates chloride conductance along nephron segments, namely the thick ascending limb of Henle's loop, convoluted tubule and the collecting duct, contributing to the maintenance of systemic acid-base and electrolyte homeostasis (By similarity). Conducts chloride currents in the stria vascularis of the inner ear to establish the endocochlear potential necessary for normal hearing (PubMed:15044642, PubMed:18310267, PubMed:19646679).

Cellular Location

Basolateral cell membrane; Multi-pass membrane protein

CLCNKA/CLCNKB Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

CLCNKA/CLCNKB Antibody (C-term) Blocking peptide - Images

CLCNKA/CLCNKB Antibody (C-term) Blocking peptide - Background

Chloride channel Kb (CLCNKB) is a member of the CLC family of voltage-gated chloride channels, which comprises at least 9 mammalian chloride channels. Each is believed to have 12 transmembrane domains and intracellular N and C termini. Mutations in CLCNKB result in the autosomal recessive Type III Bartter Syndrome. CLCNKA and CLCNKB are closely related (94% sequence identity), tightly linked (separated by 11 kb of genomic sequence) and are both expressed in mammalian kidney.

CLCNKA/CLCNKB Antibody (C-term) Blocking peptide - References

Schlingmann, K.P., et al., N. Engl. J. Med. 350(13):1314-1319 (2004). Jeck, N., et al., Kidney Int. 65(1):190-197 (2004). Maehara, H., et al., Neuroreport 14(12):1571-1573 (2003). Zelikovic, I., et al., Kidney Int. 63(1):24-32 (2003). Colussi, G., et al., Nephrol. Dial. Transplant. 17(3):521-523 (2002).