

CLC-KB (C-18): sc-130093

BACKGROUND

The family of voltage-dependent chloride channels (CLCs) regulate cellular trafficking of chloride ions, a critical component of all living cells. CLCs regulate excitability in muscle and nerve cells, aid in organic solute transport, and maintain cellular volume. CLC-KA is a kidney-specific chloride channel that mediates transepithelial chloride transport in the thin ascending limb of the Henle loop in the inner medulla. CLC-KA plays a crucial role in urine concentration. The gene encoding human CLC-KA maps to chromosome 1p36. Mutations in this gene may be associated with nephrogenic diabetes insipidus in those cases where mutations in the vasopressin V2 receptor and the AQP2 water channel are lacking. CLC-KB mediates basolateral chloride ion efflux in the thick ascending limb and in more distal nephron segments. The gene encoding human CLC-KB maps to chromosome 1p36. Mutations in this gene cause type III Bartter's syndrome which is characterized by renal salt-wasting and low blood pressure.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CLCNKB (human) mapping to 1p36.13; Clcnkb (mouse) mapping to 4 E1.

SOURCE

CLC-KB (C-18) is a purified rabbit polyclonal antibody raised against a peptide mapping at the C-terminus of CLC-KB of mouse origin

STORAGE

Store at 4°C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

CLC-KB (C-18) is recommended for detection of CLC-KB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for CLC-KB siRNA (h): sc-105210, CLC-KB siRNA (m): sc-142369, CLC-KB shRNA Plasmid (h): sc-105210-SH, CLC-KB shRNA Plasmid (m): sc-142369-SH, CLC-KB shRNA (h) Lentiviral Particles: sc-105210-V and CLC-KB shRNA (m) Lentiviral Particles: sc-142369-V.

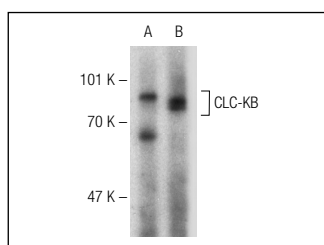
Molecular Weight of CLC-KB: 83 kDa.

Positive Controls: mouse kidney extract: sc-2255 or rat kidney extract: sc-2394.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



CLC-KB (C-18): sc-130093. Western blot analysis of CLC-KB expression in rat kidney (A) and mouse kidney (B) tissue extracts.

RESEARCH USE

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