

# CLCA2/5 (M-60): sc-99224

## BACKGROUND

The calcium-activated chloride channel (CLCA) protein family, which includes the human homologs CLCA1 and CLCA2, display distinct tissue distribution patterns. CLCA1 is expressed as a precursor protein that is processed into two cell surface associated subunits and a group of proteins. CLCA1 is upregulated by interleukin-9 and regulates the expression of mucins. CLCA1 may provide a therapeutic target to control mucus overproduction in airway disease patients with cystic fibrosis. CLCA2 expression is downregulated in breast cancer and, therefore, is thought to act as a tumor suppressor in normal cells. CLCA3 is a structurally divergent member of the CLCA family that does not function as a channel protein. CLCA4 is a CLCA member that is expressed in human rectal mucosa. CLCA5 shows strong expression in eye and spleen, and CLCA6 is primarily expressed in intestine and stomach.

## REFERENCES

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4. Hauber, H.P., Manoukian, J.J., Nguyen, L.H., Sobol, S.E., Levitt, R.C., Holroyd, K.J., McElvaney, N.G., Griffin, S. and Hamid, Q. 2003. Increased expression of interleukin-9, interleukin-9 receptor, and the calcium-activated chloride channel hCLCA1 in the upper airways of patients with cystic fibrosis. *Laryngoscope* 113: 1037-1042.
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## CHROMOSOMAL LOCATION

Genetic locus: CLCA2 (human) mapping to 1p22.3; Clca5 (mouse) mapping to 3 H2.

## SOURCE

CLCA2/5 (M-60) is a rabbit polyclonal antibody raised against amino acids 601-660 mapping within an internal region of Clca5 of mouse origin.

## PRODUCT

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

## APPLICATIONS

CLCA2/5 (M-60) is recommended for detection of Clca5 of mouse and rat origin and, to a lesser extent, CLCA2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Clca5 siRNA (m): sc-60395, CLCA2 siRNA (h): sc-60394, Clca5 shRNA Plasmid (m): sc-60395-SH, CLCA2 shRNA Plasmid (h): sc-60394-SH, Clca5 shRNA (m) Lentiviral Particles: sc-60395-V and CLCA2 shRNA (h) Lentiviral Particles: sc-60394-V.

Molecular Weight of CLCA2/5 precursor: 120 kDa.

Molecular Weight of CLCA2/5 subunits: 86/34 kDa.

## 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.

## STORAGE

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

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



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Try **Clca5 (A-5): sc-515682** or **CLCA2 (1D5): sc-517015**, our highly recommended monoclonal alternatives to CLCA2/5 (M-60).