

CLIC5 (E-16): sc-65041

BACKGROUND

Chloride intracellular channel 5 (CLIC5), is a member of the highly conserved family of chloride ion channels that function in both soluble and integral membrane forms. Chloride channels regulate cellular traffic of chloride ions, a critical component of all living cells. They are involved in membrane potential stabilization, signal transduction, cell volume regulation and organic solute transport. CLIC5 associates with Actin-based cytoskeletal structures and may be involved in their assembly and maintenance. In addition, CLIC5 may also play an important role in inner ear function, localizing to the stereocilia and possibly associating with Radixin. Two CLIC5 isoforms exist, CLIC5A and CLIC5B, which share an identical C-terminus but have distinct N-terminal sequences. CLIC5B is the human ortholog of cow p64 and bird p62. It binds AKAP 350 and localizes to the Golgi apparatus.

REFERENCES

- Berryman, M. and Bretscher, A. 2000. Identification of a novel member of the chloride intracellular channel gene family (CLIC5) that associates with the Actin cytoskeleton of placental microvilli. *Mol. Biol. Cell* 11: 1509-1521.
- Rønnev-Jessen, L., et al. 2002. Differential expression of a chloride intracellular channel gene, CLIC4, in transforming growth factor- β 1-mediated conversion of fibroblasts to myofibroblasts. *Am. J. Pathol.* 161: 471-480.
- Shanks, R.A., et al. 2002. AKAP 350 at the Golgi apparatus. II. Association of AKAP 350 with a novel chloride intracellular channel (CLIC) family member. *J. Biol. Chem.* 277: 40973-40980.
- Friedli, M., et al. 2003. Identification of a novel member of the CLIC family, CLIC6, mapping to 21q22.12. *Gene* 320: 31-40.
- Berryman, M., et al. 2004. CLIC5A functions as a chloride channel *in vitro* and associates with the cortical Actin cytoskeleton *in vitro* and *in vivo*. *J. Biol. Chem.* 279: 34794-34801.
- Gagnon, L.H., et al. 2006. The chloride intracellular channel protein CLIC5 is expressed at high levels in hair cell stereocilia and is essential for normal inner ear function. *J. Neurosci.* 26: 10188-10198.

CHROMOSOMAL LOCATION

Genetic locus: *Clic5* (mouse) mapping to 17 B3.

SOURCE

CLIC5 (E-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CLIC5 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-65041 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CLIC5 (E-16) is recommended for detection of CLIC5 of mouse and rat 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CLIC5 siRNA (m): sc-62129, CLIC5 shRNA Plasmid (m): sc-62129-SH and CLIC5 shRNA (m) Lentiviral Particles: sc-62129-V.

Molecular Weight of CLIC5A: 32 kDa.

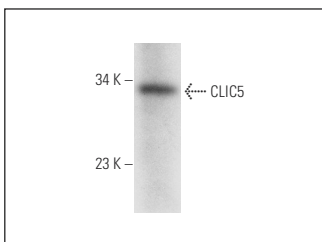
Molecular Weight of CLIC5B: 46 kDa.

Positive Controls: mouse placenta extract: sc-364247.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CLIC5 (E-16): sc-65041. Western blot analysis of CLIC5 expression in mouse placenta tissue extract.

RESEARCH USE

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

MONOS
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Try **CLIC4/5/6 (A-11): sc-271863**, our highly recommended monoclonal alternative to CLIC5 (E-16).