

CLIC1 (H-48): sc-134859

BACKGROUND

Chloride intracellular channel 1 (CLIC1), also referred to as NCC27, is a member of the highly conserved family of chloride ion channels that function in both soluble and integral membrane forms. CLIC1 is a monomeric protein that contains a redox-active site similar to glutaredoxin; it functions as an anion-selective channel. CLIC1 forms a dimer when oxidized and is then able to form chloride ion channels in bilayers and vesicles, whereas a reducing environment prevents this from occurring. Insulin concentration also plays a role in CLIC1 regulation, and the hormone may cause a subnuclear relocalization of CLIC1. CLIC1 is associated with macrophage activation; a downregulation of CLIC1 function prevents TNF α release induced by β -Amyloid protein (A- β) stimulation. This suggests a role for CLIC1 in several neurodegenerative processes, such as Alzheimer's disease, a syndrome characterized by an accumulation of β -Amyloid.

REFERENCES

- Harrop, S.J., et al. 2001. Crystal structure of a soluble form of the intracellular chloride ion channel CLIC1 (NCC27) at 1.4- α resolution. *J. Biol. Chem.* 276: 44993-45000.
- Tulk, B.M., et al. 2002. CLIC1 inserts from the aqueous phase into phospholipid membranes, where it functions as an anion channel. *Am. J. Physiol. Cell Physiol.* 282: C1103-1112.
- Warton, K., et al. 2002. Recombinant CLIC1 (NCC27) assembles in lipid bilayers via a pH-dependent two-state process to form chloride ion channels with identical characteristics to those observed in Chinese hamster ovary cells expressing CLIC1. *J. Biol. Chem.* 277: 26003-26011.
- Littler, D.R., et al. 2004. The intracellular chloride ion channel protein CLIC1 undergoes a redox-controlled structural transition. *J. Biol. Chem.* 279: 9298-9305.
- Myers, K., et al. 2004. Identification of chloride intracellular channel proteins in spermatozoa. *FEBS Lett.* 566: 136-140.
- Novarino, G., et al. 2004. Involvement of the intracellular ion channel CLIC1 in microglia-media neurotoxicity. *J. Neurosci.* 24: 5322-5330.

CHROMOSOMAL LOCATION

Genetic locus: CLIC1 (human) mapping to 6p21.33; Clc1 (mouse) mapping to 17 B1.

SOURCE

CLIC1 (H-48) is a rabbit polyclonal antibody raised against amino acids 194-241 mapping at the C-terminus of CLIC1 of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

CLIC1 (H-48) is recommended for detection of CLIC1 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with CLIC2.

CLIC1 (H-48) is also recommended for detection of CLIC1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for CLIC1 siRNA (h): sc-60400, CLIC1 siRNA (m): sc-60401, CLIC1 shRNA Plasmid (h): sc-60400-SH, CLIC1 shRNA Plasmid (m): sc-60401-SH, CLIC1 shRNA (h) Lentiviral Particles: sc-60400-V and CLIC1 shRNA (m) Lentiviral Particles: sc-60401-V.

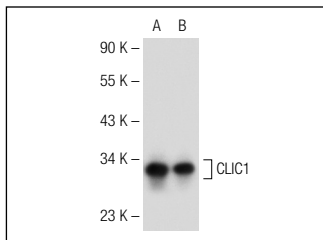
Molecular Weight of CLIC1: 27 kDa.

Positive Controls: THP-1 cell lysate: sc-2238, HL-60 whole cell lysate: sc-2209 or RAW 264.7 whole cell lysate: sc-2211.

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.

DATA



CLIC1 (H-48): sc-134859. Western blot analysis of CLIC1 expression in THP-1 (A) and HL-60 (B) whole cell lysates.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **CLIC1 (F-9): sc-374202** or **CLIC1 (B-5): sc-271051**, our highly recommended monoclonal alternatives to CLIC1 (H-48).