

CLIC1 (P-19): sc-51049

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 a 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 relocation 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 A- β .

REFERENCES

1. Harrop, S.J., et al. 2001. Crystal structure of a soluble form of the intracellular chloride ion channel CLIC1 (NCC27) at 1.4-Å resolution. *J. Biol. Chem.* 276: 44993-45000.
2. 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.
3. 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.
4. 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.
5. Myers, K., et al. 2004. Identification of chloride intracellular channel proteins in spermatozoa. *FEBS Lett.* 566: 136-140.
6. 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 (P-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CLIC1 of human origin.

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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-51049 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CLIC1 (P-19) 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).

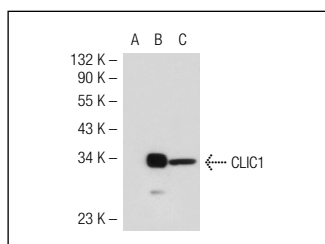
CLIC1 (P-19) is also recommended for detection of CLIC1 in additional species, including equine, canine, bovine and porcine.

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.

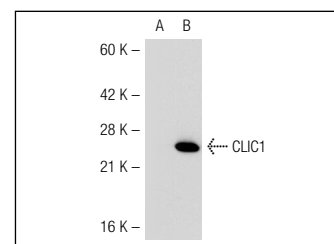
Molecular Weight of CLIC1: 27 kDa.

Positive Controls: CLIC1 (m): 293T Lysate: sc-119305, U-937 cell lysate: sc-2239 or HL-60 whole cell lysate: sc-2209.

DATA



CLIC1 (P-19): sc-51049. Western blot analysis of CLIC1 expression in non-transfected 293T: sc-117752 (A), mouse CLIC1 transfected 293T: sc-119305 (B) and THP-1 (C) whole cell lysates.



CLIC1 (P-19): sc-51049. Western blot analysis of CLIC1 expression in non-transfected: sc-117752 (A) and mouse CLIC1 transfected: sc-119305 (B) 293T whole cell lysates.

RESEARCH USE

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

MONOS
Satisfaction
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Try **CLIC1 (F-9): sc-374202** or **CLIC1 (B-5): sc-271051**, our highly recommended monoclonal alternatives to CLIC1 (P-19).