

CLIC6 (H-5): sc-365079

BACKGROUND

Chloride intracellular channel 6, CLIC6, is a probable chloride ion channel belonging to the chloride channel CLIC family. CLIC6 is believed to play a critical role in water-secreting cells, possibly through the regulation of chloride ion transport. Two essential features distinguish CLIC6 from other members of the family. The CLIC6 protein is significantly longer and the CLIC6 gene contains a GC rich segment, which encodes a 10 amino acid motif repeated 14 times in the amino-terminus. The CLIC6 gene is a rare example of large-scale segmental paralogy in which a large (approximately 500 kb) segment on human chromosome (HC) 21 (21q22) is triplicated on HC 1 and HC 6. CLIC6 is also known to interact with dopamine receptors DRD2, DRD3 and DRD4. CLIC6 is primarily expressed in the cytoplasm, however, upon chloride ion efflux from the cell, CLIC6 is translocated to the plasma membrane. CLIC6 has been identified in brain, placenta, pancreas and liver. CLIC6 is a 704 amino acid protein and there are two known isoforms, A and B. CLIC6 is also identified as parchorin in rabbit.

REFERENCES

- Hattori, M., et al. 2000. The DNA sequence of human chromosome 21. *Nature* 405: 311-319.
- Debska, G., et al. 2001. Intracellular potassium and chloride channels: an update. *Acta Biochim. Pol.* 48: 137-144.
- Strippoli, P., et al. 2002. Segmental paralogy in the human genome: a large-scale triplication on 1p, 6p, and 21q. *Mamm. Genome* 13: 456-462.
- Ashley, R.H. 2003. Challenging accepted ion channel biology: p64 and the CLIC family of putative intracellular anion channel proteins (review). *Mol. Membr. Biol.* 20: 1-11.
- Griffon, N., et al. 2003. CLIC6, a member of the intracellular chloride channel family, interacts with dopamine D2-like receptors. *Brain Res. Mol. Brain Res.* 117: 47-57
- Chen, C.Y., et al. 2003. Comparative proteomics research of apoptosis initiation induced by homoharringtonine in HL-60 cells. *Zhonghua Xue Ye Xue Za Zhi* 24: 624-628.

CHROMOSOMAL LOCATION

Genetic locus: *Clc6* (mouse) mapping to 16 C4.

SOURCE

CLIC6 (H-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 163-195 within an internal region of CLIC6 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-365079 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CLIC6 (H-5) is recommended for detection of CLIC6 of mouse and rat origin by Western Blotting (starting dilution 1:100, 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 CLIC6 siRNA (m): sc-62131, CLIC6 shRNA Plasmid (m): sc-62131-SH and CLIC6 shRNA (m) Lentiviral Particles: sc-62131-V.

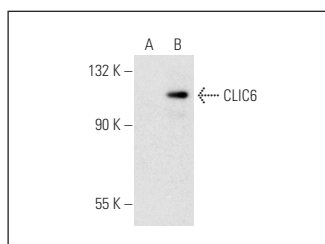
Molecular Weight of CLIC6: 71 kDa.

Positive Controls: CLIC6 (m): 293T Lysate: sc-119306.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CLIC6 (H-5): sc-365079. Western blot analysis of CLIC6 expression in non-transfected: sc-117752 (A) and mouse CLIC6 transfected: sc-119306 (B) 293T whole cell lysates.

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 for detailed protocols and support products.