CLIC6 (Q-20): sc-65053



The Power to Question

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., Kicinska, A., Skalska, J. and Szewczyk, A. 2001. Intracellular potassium and chloride channels: an update. Acta Biochim. Pol. 48: 137-144.
- Strippoli, P., D'Addabbo, P., Lenzi, L., Giannone, S., Canaider, S., Casadei, R., Vitale, L., Carinci, P. and Zannotti, M. 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.
- 5. Griffon, N., Jeanneteau, F., Prieur, F., Diaz, J. and Sokoloff, P. 2003. CLIC6, a member of the intracellular chloride channel family, interacts with dopamine D₂-like receptors. Brain Res. Mol. Brain Res. 117: 47-57.
- Friedli, M., Guipponi, M., Bertrand, S., Bertrand, D., Neerman-Arbez, M., Scott, H.S., Antonarakis, S.E. and Reymond, A. 2003. Identification of a novel member of the CLIC family, CLIC6, mapping to 21q22.12. Gene 320: 31-40.
- 7. Chen, C.Y., Jia, J.H., Pan, X.L., Meng, Y.S. and Tu, Z.H. 2004. Comparative proteomics research of apoptosis initiation induced by homoharringtonine in HL-60 cells. Zhonghua Xue Ye Xue Za Zhi 24: 624-628.
- 8. Berry, K.L. and Hobert, O. 2006. Mapping functional domains of chloride intracellular channel (CLIC) proteins *in vivo*. J. Mol. Biol. 359: 1316-1333.
- 9. Sachs, G., Shin, J.M., Vagin, O., Lambrecht, N., Yakubov, I. and Munson, K. 2007. The gastric H,K ATPase as a drug target: past, present, and future. J. Clin. Gastroenterol. 41: S226-S242.

CHROMOSOMAL LOCATION

Genetic locus: CLIC6 (human) mapping to 21g22.12.

SOURCE

CLIC6 (Q-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CLIC6 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-65053 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CLIC6 (0-20) is recommended for detection of CLIC6 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (h): sc-62130, CLIC6 shRNA Plasmid (h): sc-62130-SH and CLIC6 shRNA (h) Lentiviral Particles: sc-62130-V.

Molecular Weight of CLIC6: 71 kDa.

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) 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.

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 or our catalog for detailed protocols and support products.



Try **CLIC4/5/6 (A-11)**: **sc-271863**, our highly recommended monoclonal alternative to CLIC6 (Q-20).

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 **Europe** +00800 4573 8000 49 6221 4503 0 **www.scbt.com**