SANTA CRUZ BIOTECHNOLOGY, INC.

CLIC6 (m): 293T Lysate: sc-119306

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. 2 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 2 known isoforms, A and B. CLIC6 is also identified as parchorin in rabbit.

REFERENCES

1. Hattori, M., et al. 2000. The DNA sequence of human chromosome 21. Nature 405: 311-319.
2. Debska, G., Kicinska, A., Skalska, J. and Szewczyk, A. 2001. Intracellular potassium and chloride channels: an update. Acta Biochim. Pol. 48: 137-144.
3. 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.
4. 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 D_2-like receptors. Brain Res. Mol. Brain Res. 117: 47-57.
6. 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.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

CHROMOSOMAL LOCATION

Genetic locus: Clic6 (mouse) mapping to 16 C4.

PRODUCT

CLIC6 (m): 293T Lysate represents a lysate of mouse CLIC6 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

CLIC6 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CLIC6 antibodies. Recommended use: 10-20 µl per lane.

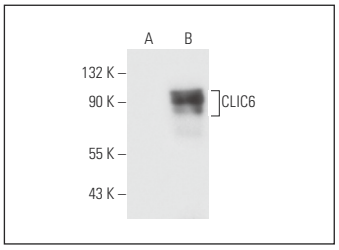
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

CLIC6 (E-11): sc-365303 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse CLIC6 expression in CLIC6 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

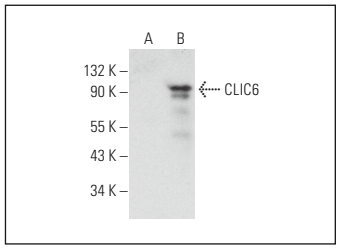
RECOMMENDED SUPPORT REAGENTS

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.

DATA



CLIC6 (E-11): sc-365303. Western blot analysis of CLIC6 expression in non-transfected: sc-117752 (**A**) and mouse CLIC6 transfected: sc-119306 (**B**) 293T whole cell lysates.



CLIC6 (C-3): sc-515339. Western blot analysis of CLIC6 expression in non-transfected: sc-117752 (**A**) and mouse CLIC6 transfected: sc-119306 (**B**) 293T whole cell lysates.

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.