SANTA CRUZ BIOTECHNOLOGY, INC.

LOC728004 (K-19): sc-83685



The Power to Question

BACKGROUND

The smallest of the human chromosomes, 21, makes up about 1.5% of the human genome. Chromosome 21 contains nearly 300 genes and 47 million base pairs. Down syndrome, also known as trisomy 21, is the disease most commonly associated with chromosome 21. Alzheimer's disease, Jervell and Lange-Nielsen syndrome and amyotrophic lateral sclerosis are also associated with chromosome 21. Translocations are found to occur between chromosome 21 and 8, and chromosome 21 and 12 in certain leukemias. The LOC728004 gene product has been provisionally designated LOC728004 pending further characterization.

REFERENCES

- Tesson, F., Donger, C., Denjoy, I., Berthet, M., Bennaceur, M., Petit, C., Coumel, P., Schwarts, K. and Guicheney, P. 1996. Exclusion of KCNE1 (IsK) as a candidate gene for Jervell and Lange-Nielsen syndrome. J. Mol. Cell. Cardiol. 28: 2051-2055.
- Tyson, J., Tranebjaerg, L., Bellman, S., Wren, C., Taylor, J.F., Bathen, J., Aslaksen, B., Sørland, S.J., Lund, O., Malcolm, S., Pembrey, M., Bhattacharya, S. and Bitner-Glindzicz, M. 1997. IsK and KvLQT1: mutation in either of the two subunits of the slow component of the delayed rectifier potassium channel can cause Jervell and Lange-Nielsen syndrome. Hum. Mol. Genet. 6: 2179-2185.
- Müller, S., Stanyon, R., Finelli, P., Archidiacono, N. and Wienberg, J. 2000. Molecular cytogenetic dissection of human chromosomes 3 and 21 evolution. Proc. Natl. Acad. Sci. USA 97: 206-211.
- Mao, R., Wang, X., Spitznagel, E.L.Jr., Frelin, L.P., Ting, J.C., Ding, H., Kim, J.W., Ruczinski, I., Downey, T.J. and Pevsner, J. 2005. Primary and secondary transcriptional effects in the developing human Down syndrome brain and heart. Genome Biol. 6: R107.
- Robakis, N.K. 2006. The discovery and mapping to chromosome 21 of the Alzheimer's amyloid gene: history revised. J. Alzheimers Dis. 10: 453-455.
- Sun, X., He, G. and Song, W. 2006. BACE2, as a novel APP θ-secretase, is not responsible for the pathogenesis of Alzheimer's disease in Down syndrome. FASEB J. 20: 1369-1376.

CHROMOSOMAL LOCATION

Genetic locus: LOC728004 (human) mapping to 21q22.3.

SOURCE

LOC728004 (K-19) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of LOC728004 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.

RESEARCH USE

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

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-83685 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

L0C728004 (K-19) is recommended for detection of L0C728004 of 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).

Suitable for use as control antibody for LOC728004 siRNA (h): sc-91461, LOC728004 shRNA Plasmid (h): sc-91461-SH and LOC728004 shRNA (h) Lentiviral Particles: sc-91461-V.

Molecular Weight of LOC728004: 87 kDa.

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.

PROTOCOLS

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