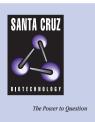
SANTA CRUZ BIOTECHNOLOGY, INC.

TMEM50B (N-12): sc-83761



BACKGROUND

TMEM50B (transmembrane protein 50B), also known as HCV p7-transregulated protein 3 (HCVP7TP3), is a 158 amino acid protein belonging to the UPF0220 family. The gene that encodes TMEM50B maps to chromosome 21, the smallest of the human chromosomes. 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.

REFERENCES

- Reboul, J., Gardiner, K., Monneron, D., Uze, G. and Lutfalla, G. 1999. Comparative genomic analysis of the interferon/interleukin-10 receptor gene cluster. Genome Res. 9: 242-250.
- Gardiner, K., Slavov, D., Bechtel, L. and Davisson, M. 2002. Annotation of human chromosome 21 for relevance to Down syndrome: gene structure and expression analysis. Genomics 79: 833-843.
- Lim, J., Hao, T., Shaw, C., Patel, A.J., Szabó, G., Rual, J.F., Fisk, C.J., Li, N., Smolyar, A., Hill, D.E., Barabási, A.L., Vidal, M. and Zoghbi, H.Y. 2006. A protein-protein interaction network for human inherited ataxias and disorders of Purkinje cell degeneration. Cell 125: 801-814.
- 4. Sommer, C.A. and Henrique-Silva, F. 2008. Trisomy 21 and Down syndrome: a short review. Braz. J. Biol. 68: 447-452.
- Jellinger, K.A., Janetzky, B., Attems, J. and Kienzl, E. 2008. Biomarkers for early diagnosis of Alzheimer disease: "ALZheimer ASsociated gene"—a new blood biomarker? J. Cell. Mol. Med. 12: 1094-1117.
- Shin, M.G., Choi, H.W., Kim, H.R., Kim, M.J., Baek, H.J., Han, D.K., Kook, H., Hwang, T.J., Kim, H.J., Kim, S.H., Shin, J.H., Suh, S.P. and Ryang, D.W. 2008. Tetrasomy 21 as a sole acquired abnormality without GATA1 gene mutation in pediatric acute megakaryoblastic leukemia: a case report and review of the literature. Leuk. Res. 32: 1615-1619.
- Moore, S.W. 2008. Down syndrome and the enteric nervous system. Pediatr. Surg. Int. 24: 873-883.

CHROMOSOMAL LOCATION

Genetic locus: NA (human) mapping to 21q22.11; Tmem50b (mouse) mapping to 16 C3.3.

SOURCE

TMEM50B (N-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of TMEM50B of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-83761 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMEM50B (N-12) is recommended for detection of TMEM50B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 TMEM50B siRNA (h): sc-91513, TMEM50B siRNA (m): sc-154475, TMEM50B shRNA Plasmid (h): sc-91513-SH, TMEM50B shRNA Plasmid (m): sc-154475-SH, TMEM50B shRNA (h) Lentiviral Particles: sc-91513-V and TMEM50B shRNA (m) Lentiviral Particles: sc-154475-V.

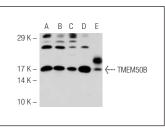
Molecular Weight of TMEM50B: 18 kDa.

Positive Controls: Ramos cell lysate: sc-2216 or Y79 cell lysate: sc-2240.

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) Immunopre-cipitation: 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.





TMEM50B (N-12): sc-83761. Western blot analysis of TMEM50B expression in HEK293 (A), Ramos (B), Y79 (C) and TT (D) whole cell lysates and mouse thyroid tissue extract (E).

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.