SANTA CRUZ BIOTECHNOLOGY, INC.

TMEM195 (m2): 293T Lysate: sc-179616

BACKGROUND

TMEM195 (transmembrane protein 195). also known as Alkylglycerol monooxygenase, is a 445 amino acid multi-pass membrane protein that belongs to the sterol desaturase family. TMEM195 cleaves the O-alkylbond of ether lipids, which are essential components of brain membranes. The gene encoding TMEM195 maps to human chromosome 7p21.2, which is about 158 milllion bases long and encodes over 1000 genes. Chromosome 7 has been linked to osteogenesis imperfecta, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome. The deletion of a portion of the q arm of chromosome 7 is associated with Williams-Beuren syndrome, a condition characterized by mild mental retardation, an unusual comfort and friendliness with strangers and an elfin appearance. Deletions of portions of the q arm of chromosome 7 are also seen in a number of myeloid disorders including cases of acute myelogenous leukemia and myelodysplasia.

REFERENCES

1. Liang, H., Fairman, J., Claxton, D.F., Nowell, P.C., Green, E.D. and Nagarajan, L. 1998. Molecular anatomy of chromosome 7q deletions in myeloid neoplasms: evidence for multiple critical loci. Proc. Natl. Acad. Sci. USA 95: 3781-3785.
2. Scherer, S.W., Cheung, J., MacDonald, J.R., Osborne, L.R., Nakabayashi, K., Herbrick, J.A., Carson, A.R., Parker-Katiraee, L., Skaug, J., Khaja, R., Zhang, J., Hudek, A.K., Li, M., Haddad, M., Duggan, G.E., et al. 2003. Human chromosome 7: DNA sequence and biology. Science 300: 767-772.
3. Brezinová, J., Zemanová, Z., Ransdorfová, S., Pavlistová, L., Babická, L., Housková, L., Melichercíková, J., Sisková, M., Cermák, J. and Michalová, K. 2007. Structural aberrations of chromosome 7 revealed by a combination of molecular cytogenetic techniques in myeloid malignancies. Cancer Genet. Cytogenet. 173: 10-16.
4. Boesgaard, T.W., Grarup, N., Jorgensen, T., Borch-Johnsen, K., Hansen, T. and Pedersen, O. 2010. Variants at DGKB/TMEM195, ADRA2A, GLIS3 and C2CD4B loci are associated with reduced glucose-stimulated β cell function in middle-aged Danish people. Diabetologia 53: 1647-1655.
5. Akiyama, K., Narita, A., Nakaoka, H., Cui, T., Takahashi, T., Yasuno, K., Tajima, A., Krischek, B., Yamamoto, K., Kasuya, H., Hata, A. and Inoue, I. 2010. Genome-wide association study to identify genetic variants present in Japanese patients harboring intracranial aneurysms. J. Hum. Genet. 55: 656-661.
6. Dupuis, J., Langenberg, C., Prokopenko, I., Saxena, R., Soranzo, N., et al. 2010. New genetic loci implicated in fasting glucose homeostasis and their impact on type 2 diabetes risk. Nat. Genet. 42: 105-116.
7. Renström, F., Shungin, D., Johansson, I., Florez, J.C., Hallmans, G., Hu, F.B. and Franks, P.W. 2011. Genetic predisposition to long-term non-diabetic deteriorations in glucose homeostasis: ten-year follow-up of the GLACIER Study. Diabetes 60: 345-354.

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: Agmo (mouse) mapping to 12 A3.

PRODUCT

TMEM195 (m2): 293T Lysate represents a lysate of mouse TMEM195 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

TMEM195 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TMEM195 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.

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.