TTC12 (h): 293T Lysate: sc-114915



The Power to Question

BACKGROUND

The tetratricopeptide repeat (TPR) motif is a degenerate, 34 amino acid sequence found in many proteins and acts to mediate protein-protein interactions in various pathways. At the sequence level, there can be up to 16 tandem TPR repeats, each of which has a helix-turn-helix shape that stacks on other TPR repeats to achieve ligand binding specificity. TTC12 (tetratricopeptide repeat domain 12), also known as TPARM, is a 705 amino acid cytoplasmic protein containing a TPR repeat domain and three armadillo repeat motifs. TTC12 is expressed in testis, prostate, lung, germinal center B cells, neuroblastoma, teratocarcinoma, colon cancer and gastric cancer. The gene encoding TTC12 is located in a region of human chromosome 11 that is commonly deleted in a variety of cancers, therefore, it is considered a candidate tumor suppressor gene. Human chromosome 11 houses over 1,400 genes and comprises nearly 4% of the human genome.

REFERENCES

- Katoh, M. and Katoh, M. 2003. Identification and characterization of TPARM gene in silico. Int. J. Oncol. 23: 1213-1217.
- Gelernter, J., Yu, Y., Weiss, R., Brady, K., Panhuysen, C., Yang, B.Z., Kranzler, H.R. and Farrer, L. 2006. Haplotype spanning TTC12 and ANKK1, flanked by the DRD2 and NCAM1 loci, is strongly associated to nicotine dependence in two distinct American populations. Hum. Mol. Genet. 15: 3498-3507.
- Yang, B.Z., Kranzler, H.R., Zhao, H., Gruen, J.R., Luo, X. and Gelernter, J. 2007. Association of haplotypic variants in DRD2, ANKK1, TTC12 and NCAM1 to alcohol dependence in independent case control and family samples. Hum. Mol. Genet. 16: 2844-2853.
- Wattanawaraporn, R., Singhsilarak, T., Nuchprayoon, I. and Mutirangura, A. 2007. Hypermethylation of TTC12 gene in acute lymphoblastic leukemia. Leukemia 21: 2370-2373.
- 5. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 610732. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Korkola, J.E., Heck, S., Olshen, A.B., Reuter, V.E., Bosl, G.J., Houldsworth, J. and Chaganti, R.S. 2008. *In vivo* differentiation and genomic evolution in adult male germ cell tumors. Genes Chromosomes Cancer 47: 43-55.
- David, S.P., Mezuk, B., Zandi, P.P., Strong, D., Anthony, J.C., Niaura, R., Uhl, G.R. and Eaton, W.W. 2010. Sex differences in TTC12/ANKK1 haplotype associations with daily tobacco smoking in black and white Americans. Nicotine Tob. Res. 12: 251-262.

CHROMOSOMAL LOCATION

Genetic locus: TTC12 (human) mapping to 11q23.2.

PRODUCT

TTC12 (h): 293T Lysate represents a lysate of human TTC12 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

TTC12 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive TTC12 antibodies. Recommended use: 10-20 µl per lane.

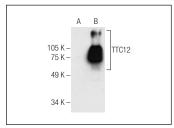
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

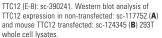
TTC12 (E-8): sc-390241 is recommended as a positive control antibody for Western Blot analysis of enhanced human TTC12 expression in TTC12 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

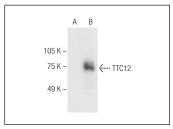
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA







TTC12 (B-1): sc-390229. Western blot analysis of TTC12 expression in non-transfected: sc-117752 (**A**) and human TTC12 transfected: sc-114915 (**B**) 293T whole cell lysates.

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.

PROTOCOLS

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