

TPIP (978CT6.1.4): sc-517368

BACKGROUND

TPIP, also known as TPTE2 (transmembrane phosphoinositide 3-phosphatase and tensin homolog 2), phosphatidylinositol-3,4,5-trisphosphate 3-phosphatase TPTE2, lipid phosphatase TPIP, or TPTE and PTEN homologous inositol lipid phosphatase, is a 522 amino acid multi-pass membrane protein containing a C2 tensin-type domain, and one phosphatase tensin-type domain. Localizing to the endoplasmic reticulum membrane, TPIP exists as four alternatively spliced isoforms, designated TPIP- γ , TPIP-2, TPIP- α , and TPIP- β . TPIP- β , which lacks a transmembrane domain and contains a truncated CS domain, localizes to cytoplasm and is testis specific. TPIP- α is expressed in testis, brain and stomach and shows a high degree of sequence conservation with PTEN as well as TPTE. The gene encoding TPIP maps to human chromosome 13q12.11.

REFERENCES

1. Walker, S.M., Downes, C.P. and Leslie, N.R. 2001. TPIP: a novel phosphoinositide 3-phosphatase. *Biochem. J.* 360: 277-283.
2. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 606791. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Tapparell, C., Reymond, A., Girardet, C., Guillo, L., Lyle, R., Lamon, C., Hutter, P. and Antonarakis, S.E. 2003. The TPTE gene family: cellular expression, subcellular localization and alternative splicing. *Gene* 323: 189-199.
4. Deocampo, N.D., Huang, H. and Tindall, D.J. 2003. The role of PTEN in the progression and survival of prostate cancer. *Minerva Endocrinol.* 28: 145-153.
5. Dunham, A., Matthews, L.H., Burton, J., Ashurst, J.L., Howe, K.L., Ashcroft, K.J., Beare, D.M., Burford, D.C., Hunt, S.E., Griffiths-Jones, S., Jones, M.C., Keenan, S.J., et al. 2004. The DNA sequence and analysis of human chromosome 13. *Nature* 428: 522-528.
6. Clifford, R.J., Zhang, J., Meerzaman, D.M., Lyu, M.S., Hu, Y., Cultraro, C.M., Finney, R.P., Kelley, J.M., Efroni, S., Greenblum, S.I., Nguyen, C.V., Rowe, W.L., Sharma, S., Wu, G., Yan, C., Zhang, H., Chung, Y.H., Kim, J.A., Park, N.H., Song, I.H. and Buetow, K.H. 2010. Genetic variations at loci involved in the immune response are risk factors for hepatocellular carcinoma. *Hepatology* 52: 2034-2043.
7. Rose, J.E., Behm, F.M., Drgon, T., Johnson, C. and Uhl, G.R. 2010. Personalized smoking cessation: interactions between nicotine dose, dependence and quit-success genotype score. *Mol. Med.* 16: 247-253.

CHROMOSOMAL LOCATION

Genetic locus: TPTE2 (human) mapping to 13q12.11.

SOURCE

TPIP (978CT6.1.4) is a mouse monoclonal antibody raised against purified His-tagged TPIP protein fragment of human origin.

PRODUCT

Each vial contains 50 μ l ascites containing IgG_{2a} with < 0.1% sodium azide.

APPLICATIONS

TPIP (978CT6.1.4) is recommended for detection of TPIP of mouse, rat and human origin by Western Blotting (starting dilution: to be determined by researcher, dilution range 1:100-1:5000).

Suitable for use as control antibody for TPIP siRNA (h): sc-76719, TPIP shRNA Plasmid (h): sc-76719-SH and TPIP shRNA (h) Lentiviral Particles: sc-76719-V.

Molecular Weight of TPIP isoforms 1/2/3/4: 61/56/52/38 kDa.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

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.