TMEFF2 (C-19): sc-47502



The Power to Question

BACKGROUND

Transmembrane protein containing epidermal growth factor and two follistatin domains proteins (TMEFF1 and TMEFF2), are single-pass type 1 membrane proteins comprised of one epidermal growth factor (EGF)-like domain and two follistatin-like domains. TMEFF2, which also is designated hyperplastic polyposis protein 1 (HPP1) or tomoregulin (TR), may act as a survival factor for mesencephalic and hippocampal neurons. It is highly expressed in brain, prostate and spinal cord, but can also be detected in colon and stromal cells of normal colonic mucosa. TMEFF2, which is highly glycosylated, is downregulated in tumor cell lines as a result of methylations in its 5' region.

REFERENCES

- Horie, M., Mitsumoto, Y., Kyushiki, H., Kanemoto, N., Watanabe, A., Taniguchi, Y., Nishino, N., Okamoto, T., Kondo, M., Mori, T., Noguchi, K., Nakamura, Y., Takahashi, E. and Tanigami, A. 2000. Identification and characterization of TMEFF2, a novel survival factor for hippocampal and mesencephalic neurons. Genomics 67: 146-152.
- Uchida, T., Wada, K., Akamatsu, T., Yonezawa, M., Noguchi, H., Mizoguchi, A., Kasuga, M. and Sakamoto, C. 2000. A novel epidermal growth factor-like molecule containing two follistatin modules stimulates tyrosine phosphorylation of erbB-4 in MKN28 gastric cancer cells. Biochem. Biophys. Res. Commun. 266: 593-602.
- Liang, G., Robertson, K.D., Talmadge, C., Sumegi, J. and Jones, P.A. 2000.
 The gene for a novel transmembrane protein containing epidermal growth factor and follistatin domains is frequently hypermethylated in human tumor cells. Cancer Res. 60: 4907-4912.
- Young, J., Biden, K.G., Simms, L.A., Huggard, P., Karamatic, R., Eyre, H.J., Sutherland, G.R., Herath, N., Barker, M. anderson, G.J., Fitzpatrick, D.R., Ramm, G.A., Jass, J.R. and Leggett, B.A. 2001. HPP1: a transmembrane protein-encoding gene commonly methyl polyps and cancers. Proc. Natl. Acad. Sci. USA 98: 265-270.
- Glynne-Jones, E., Harper, M.E., Seery, L.T., James, R., Anglin, I., Morgan, H.E., Taylor, K.M., Gee, J.M. and Nicholson, R.I. 2001. TENB2, a proteoglycan identified in prostate cancer that is associated with disease progression and androgen independence. Int. J. Cancer 94: 178-184.
- 6. Afar, D.E, Bhaskar, V., Ibsen, E., Breinberg, D., Henshall, S.M., Kench, J.G., Drobnjak, M., Powers, R., Wong, M., Evangelista, F., O'Hara, C., Powers, D., DuBridge, R.B., Caras, I., Winter, R., Anderson, T., Solvason, N., Stricker, P.D., Cordon-Cardo, C., Scher, H.I., Grygiel, J.J., Sutherland, R.L., Murray, R., Ramakrishnan, V. and Law, D.A. 2004. Preclinical validation of anti-TMEFF2-auristatin E-conjugated antibodies in the treatment of prostate cancer. Mol. Cancer Ther. 3: 921-932.

CHROMOSOMAL LOCATION

Genetic locus: TMEFF2 (human) mapping to 2q32.3; Tmeff2 (mouse) mapping to 1 C1.1.

RESEARCH USE

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

SOURCE

TMEFF2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of TMEFF2 of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47502 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TMEFF2 (C-19) is recommended for detection of TMEFF2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

TMEFF2 (C-19) is also recommended for detection of TMEFF2 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for TMEFF2 siRNA (h): sc-61695, TMEFF2 siRNA (m): sc-61696, TMEFF2 shRNA Plasmid (h): sc-61695-SH, TMEFF2 shRNA Plasmid (m): sc-61696-SH, TMEFF2 shRNA (h) Lentiviral Particles: sc-61695-V and TMEFF2 shRNA (m) Lentiviral Particles: sc-61696-V.

Molecular Weight of TMEFF2: 41.4 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or mouse brain extract: sc-2253.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

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