# TMEFF2 (J4B6): sc-135812



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 down-regulated 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.
- 2. 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.
- Uchida, T., Wada, K., Akamatsu, T., Yonezawa, M., Noguchi, H., Mizoguchi, A., Kasuga, M. and Sakamoto, C. 2000. A novel epidermal growth factorlike molecule containing two follistatin modules stimulates tyrosine phosphorylation of ErbB-4 in MKN28 gastric cancer cells. Biochem. Biophys. Res. Commun. 266: 593-602.
- 4. 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 methylated in colorectal 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., et al. 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.

#### **SOURCE**

TMEFF2 (J4B6) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 41-150 of TMEFF2 of human origin.

#### **PRODUCT**

Each vial contains 50  $\mu g \; lg G_{2b}$  in 0.5 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

#### **APPLICATIONS**

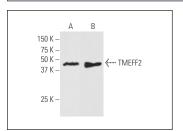
TMEFF2 (J4B6) is recommended for detection of TMEFF2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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 kDa.

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

#### **DATA**



TMEFF2 (J4B6): sc-135812. Western blot analysis of TMEFF2 expression in mouse brain tissue extract (**A**) and HeLa whole cell lysate (**B**).

## **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 for detailed protocols and support products.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com