

TMEFF2 (E-12): sc-376175

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

1. Uchida, T., et al. 1999. 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.
2. Horie, M., et al. 2000. Identification and characterization of TMEFF2, a novel survival factor for hippocampal and mesencephalic neurons. *Genomics* 67: 146-152.
3. Liang, G., et al. 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.
4. Young, J., et al. 2001. HPP1: a transmembrane protein-encoding gene commonly methylated in colorectal polyps and cancers. *Proc. Natl. Acad. Sci. USA* 98: 265-270.
5. Glynn-Jones, E., et al. 2001. TENB2, a proteoglycan identified in prostate cancer that is associated with disease progression and androgen independence. *International journal of cancer. Int. J. Cancer* 94: 178-184.

CHROMOSOMAL LOCATION

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

SOURCE

TMEFF2 (E-12) is a mouse monoclonal antibody raised against amino acids 41-103 mapping near the N-terminus of TMEFF2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TMEFF2 (E-12) is available conjugated to agarose (sc-376175 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376175 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376175 PE), fluorescein (sc-376175 FITC), Alexa Fluor® 488 (sc-376175 AF488), Alexa Fluor® 546 (sc-376175 AF546), Alexa Fluor® 594 (sc-376175 AF594) or Alexa Fluor® 647 (sc-376175 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376175 AF680) or Alexa Fluor® 790 (sc-376175 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

TMEFF2 (E-12) is recommended for detection of TMEFF2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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 (E-12) is also recommended for detection of TMEFF2 in additional species, including equine.

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.

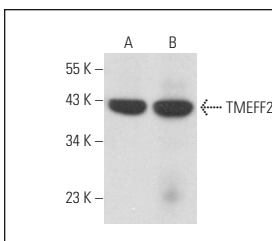
Molecular Weight of TMEFF2: 41 kDa.

Positive Controls: rat brain extract: sc-2392, LNCaP cell lysate: sc-2231 or mouse brain extract: sc-2253.

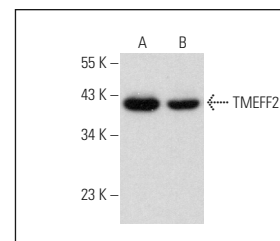
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TMEFF2 (E-12): sc-376175. Western blot analysis of TMEFF2 expression in LNCaP whole cell lysate (A) and human brain tissue extract (B).



TMEFF2 (E-12): sc-376175. Western blot analysis of TMEFF2 expression in mouse brain (A) and rat brain (B) tissue extracts.

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.