

# TMEFF1 (B-4): sc-393457

## BACKGROUND

TMEFF1 and TMEFF2 are putative transmembrane proteins comprised of one epidermal growth factor (EGF)-like domain and two follistatin-like domains. Both TMEFF1 and TMEFF2 are members of the EGF-like protein family and are predominantly expressed in the brain. The structure of TMEFF1 is that of a transmembrane protein with a highly conserved cytoplasmic tail, two follistatin domains and one modified EGF domain in its extracellular region. TMEFF1 is expressed on the cell membrane, and may behave as a tumor suppressor gene in brain cancers. It inhibits nodal but not activin signaling by binding to Cripto, the nodal co-receptor, and is also involved in the regulation of BMPs.

## REFERENCES

1. Kanemoto, N., et al. 2001. Expression of TMEFF1 mRNA in the mouse central nervous system: precise examination and comparative studies of TMEFF1 and TMEFF2. *Brain Res. Mol. Brain Res.* 86: 48-55.
2. Morais da Silva, S., et al. 2001. The expression pattern of tomoregulin-1 in urodele limb regeneration and mouse limb development. *Mech. Dev.* 104: 125-128.
3. Harms, P.W. and Chang, C. 2003. Tomoregulin-1 (TMEFF1) inhibits nodal signaling through direct binding to the nodal co-receptor Cripto. *Genes Dev.* 17: 2624-2629.
4. Gery, S., et al. 2003. TMEFF1 and brain tumors. *Oncogene* 22: 2723-2727.

## CHROMOSOMAL LOCATION

Genetic locus: TMEFF1 (human) mapping to 9q31.1; Tmeff1 (mouse) mapping to 4 B1.

## SOURCE

TMEFF1 (B-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 222-247 within an internal region of TMEFF1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TMEFF1 (B-4) is available conjugated to agarose (sc-393457 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393457 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393457 PE), fluorescein (sc-393457 FITC), Alexa Fluor® 488 (sc-393457 AF488), Alexa Fluor® 546 (sc-393457 AF546), Alexa Fluor® 594 (sc-393457 AF594) or Alexa Fluor® 647 (sc-393457 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393457 AF680) or Alexa Fluor® 790 (sc-393457 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-393457 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

TMEFF1 (B-4) is recommended for detection of TMEFF1 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).

Suitable for use as control antibody for TMEFF1 siRNA (h): sc-45762, TMEFF1 siRNA (m): sc-45763, TMEFF1 shRNA Plasmid (h): sc-45762-SH, TMEFF1 shRNA Plasmid (m): sc-45763-SH, TMEFF1 shRNA (h) Lentiviral Particles: sc-45762-V and TMEFF1 shRNA (m) Lentiviral Particles: sc-45763-V.

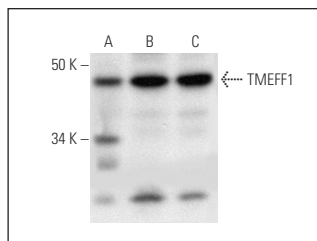
Molecular Weight of TMEFF1: 41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, T98G cell lysate: sc-2294 or human heart extract: sc-363763.

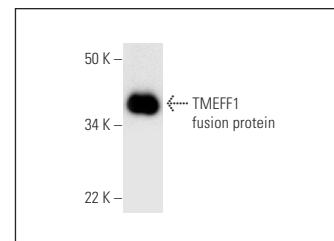
## RECOMMENDED SUPPORT REAGENTS

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



TMEFF1 (B-4): sc-393457. Western blot analysis of TMEFF1 expression in human heart tissue extract (A) and T98G (B) and HeLa (C) whole cell lysates.



TMEFF1 (B-4): sc-393457. Western blot analysis of human recombinant TMEFF1 fusion protein.

## 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](http://www.scbt.com) for detailed protocols and support products.