

TM4SF1 (P-13): sc-103265

BACKGROUND

The transmembrane 4 superfamily (also known as the tetraspanin family) is a group of cell surface proteins that regulate cell development, activation, growth and motility. Each member contains four hydrophobic domains and participates in the mediation of signal transduction. TM4SF1 (transmembrane 4 L six family member 1), also known as membrane component surface marker 1 (M3S1) or tumor-associated antigen L6 (TAAL6), is a 202 amino acid multi-pass membrane protein belonging to the L6 tetraspanin family. TM4SF1 is found in tumor cells and high molecular weight complexes, with strong expression in breast, colon, lung and ovarian carcinomas. TM4SF1 may be a natural ligand of the PDZ-containing protein syntenin-1 and has been studied as a therapeutic target for monoclonal antibodies. The gene encoding TM4SF1 maps to human chromosome 3q21.

REFERENCES

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2. Virtaneva, K.I., et al. 1994. Chromosomal localization of three human genes coding for A15, L6, and S5.7 (TAPA1): all members of the transmembrane 4 superfamily of proteins. *Immunogenetics* 39: 329-334.
3. Marken, J.S., et al. 1994. Membrane topology of the L6 antigen and identification of the protein epitope recognized by the L6 monoclonal antibody. *J. Biol. Chem.* 269: 7397-7401.
4. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 191155. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Borrell-Pagès, M., et al. 2000. The carboxy-terminal cysteine of the tetraspanin L6 antigen is required for its interaction with SITAC, a novel PDZ protein. *Mol. Biol. Cell.* 11: 4217-4225.
6. Kaneko, R., et al. 2001. Amount of expression of the tumor-associated antigen L6 gene and transmembrane 4 superfamily member 5 gene in gastric cancers and gastric mucosa. *Am. J. Gastroenterol.* 96: 3457-3458.
7. Kao, Y.R., et al. 2003. Tumor-associated antigen L6 and the invasion of human lung cancer cells. *Clin. Cancer Res.* 9: 2807-2816.

CHROMOSOMAL LOCATION

Genetic locus: TM4SF1 (human) mapping to 3q21.

SOURCE

TM4SF1 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of TM4SF1 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-103265 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TM4SF1 (P-13) is recommended for detection of TM4SF1 of 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)], 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).

TM4SF1 (P-13) is also recommended for detection of TM4SF1 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for TM4SF1 siRNA (h): sc-78361, TM4SF1 shRNA Plasmid (h): sc-78361-SH and TM4SF1 shRNA (h) Lentiviral Particles: sc-78361-V.

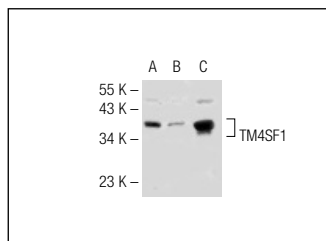
Molecular Weight of TM4SF1: 24 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MIA PaCa-2 cell lysate: sc-2285 or T24 cell lysate: sc-2292.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



TM4SF1 (P-13): sc-103265. Western blot analysis of TM4SF1 expression in HeLa (A), MIA PaCa-2 (B) and T24 (C) whole cell lysates.

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.