

# TM4SF19 (K-17): sc-103269

## 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. TM4SF19 (transmembrane 4 L6 family member 19), also known as osteoclast maturation-associated gene 4 protein (OCTM4), is a 209 amino acid multi-pass membrane protein belonging to the L6 tetraspanin family. TM4SF19 is encoded by a gene located on human chromosome 3, which houses over 1,100 genes, including a chemokine receptor (CKR) gene cluster and a variety of human cancer-related gene loci. Key tumor suppressing genes on chromosome 3 include those that encode the apoptosis mediator RASSF1, the cell migration regulator HYAL1 and the angiogenesis suppressor SEMA3B. Marfan Syndrome, porphyria, von Hippel-Lindau syndrome, osteogenesis imperfecta and Charcot-Marie-Tooth disease are a few of the numerous genetic diseases associated with chromosome 3.

## REFERENCES

1. 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.
2. De Jonghe, P., et al. 1997. Mutilating neuropathic ulcerations in a chromosome 3q13-q22 linked Charcot-Marie-Tooth disease type 2B family. *J. Neurol. Neurosurg. Psychiatr.* 62: 570-573.
3. Maho, A., et al. 1999. Mapping of the CCXCR1, CX3CR1, CCBP2 and CCR9 genes to the CCR cluster within the 3p21.3 region of the human genome. *Cytogenet. Cell Genet.* 87: 265-268.
4. Wright, M.D., et al. 2000. The L6 membrane proteins—a new four-transmembrane superfamily. *Protein Sci.* 9: 1594-1600.
5. Kao, Y.R., et al. 2003. Tumor-associated antigen L6 and the invasion of human lung cancer cells. *Clin. Cancer Res.* 9: 2807-2816.
6. Braga, E.A., et al. 2003. New tumor suppressor genes in hot spots of human chromosome 3: new methods of identification. *Mol. Biol.* 37: 194-211.

## CHROMOSOMAL LOCATION

Genetic locus: TM4SF19 (human) mapping to 3q29.

## SOURCE

TM4SF19 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of TM4SF19 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-103269 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

TM4SF19 (K-17) is recommended for detection of TM4SF19 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); non cross-reactive with other TM4SF family members.

TM4SF19 (K-17) is also recommended for detection of TM4SF19 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for TM4SF19 siRNA (h): sc-78494, TM4SF19 shRNA Plasmid (h): sc-78494-SH and TM4SF19 shRNA (h) Lentiviral Particles: sc-78494-V.

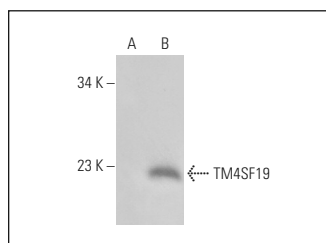
Molecular Weight of TM4SF19: 22 kDa.

Positive Controls: TM4SF19 (h): 293T Lysate: sc-369018.

## 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



TM4SF19 (K-17): sc-103269. Western blot analysis of TM4SF19 expression in non-transfected: sc-117752 (A) and human TM4SF19 transfected: sc-369018 (B) 293T 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.