

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TM4SF1/L6 in ELISA. In Flow Cytometry, it stains HEK293 cells transfected with human TM4SF1/L6, and does not stain HEK293 cells transfected with irrelevant human cell surface marker.
Source	Monoclonal Mouse IgG ₁ Clone # 877621
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human TM4SF1/L6 Met1-Cys202 Accession # P30408
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

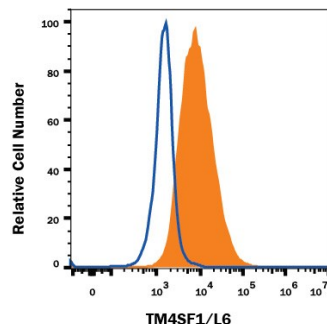
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Flow Cytometry	0.25 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Immunohistochemistry	5-25 µg/mL	See Below
CytoF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

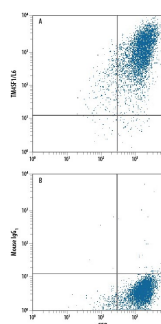
DATA

Flow Cytometry



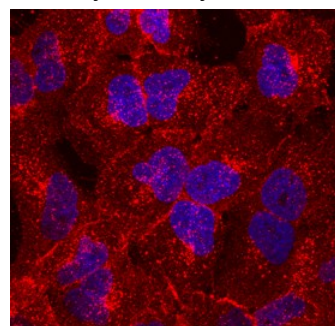
Detection of TM4SF1/L6 in A549 Human Cell Line by Flow Cytometry. A549 human lung carcinoma cell line was stained with Mouse Anti-Human TM4SF1/L6 Monoclonal Antibody (Catalog # MAB8164, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). View our protocol for [Staining Membrane-associated Proteins](#).

Flow Cytometry



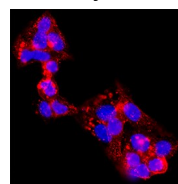
Detection of TM4SF1/L6 in HEK293 Human Cell Line Transfected with Human TM4SF1/L6 and eGFP by Flow Cytometry. HEK293 human embryonic kidney cell line transfected with human TM4SF1/L6 and eGFP was stained with either (A) Mouse Anti-Human TM4SF1/L6 Monoclonal Antibody (Catalog # MAB8164) or (B) Mouse IgG₁ Isotype Control (Catalog # MAB002) followed by Phycoerythrin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). View our protocol for [Staining Membrane-associated Proteins](#).

Immunocytochemistry

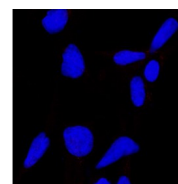


TM4SF1/L6 in A549 Human Cell Line. TM4SF1/L6 was detected in immersion fixed A549 human lung carcinoma cell line using Mouse Anti-Human TM4SF1/L6 Monoclonal Antibody (Catalog # MAB8164) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell membranes. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunocytochemistry



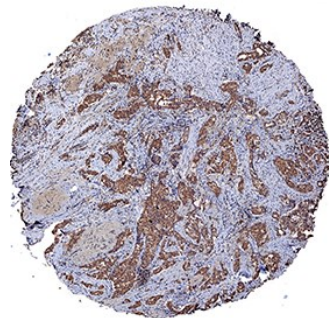
Positive (HepG2 cells)



Negative (HEK293 cells)

TM4SF1/L6 in HepG2 Human Cell Line. TM4SF1/L6 was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line (positive staining) and HEK293 human embryonic kidney cell line (negative control) using Mouse Anti-Human TM4SF1/L6 Monoclonal Antibody (Catalog # MAB8164) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cell membrane and cytoplasm. Staining was performed using our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Immunohistochemistry



TM4SF1/L6 in Human Breast Cancer Tissue. TM4SF1/L6 was detected in immersion fixed paraffin-embedded sections of human breast cancer tissue using Mouse Anti-Human TM4SF1/L6 Monoclonal Antibody (Catalog # MAB8164) at 5 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in cancer cells. View our protocol for IHC Staining with VisUCyte HRP Polymer Detection Reagents.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

TM4SF1 (Transmembrane 4 L6 family Member 1; also L6 and M3s1) is a 23-28 kDa member of the L6 tetraspanin family of molecules. It is expressed by fibroblasts, endothelial cells and a variety of tumor cells. TM4SF1 is embedded in both the plasma membrane and the membrane of late endocytic organelles. Here, it appears to be ubiquitinated, and to regulate endocytosis, an action that impacts effective cell migration. TM4SF1 is reported to interact with α5 and β1 integrins, and this may impact cell motility. It also suppresses the expression of CD63 and CD82, two molecules that impede cell mobility. Mouse TM4SF1 is a 202 amino acid (aa) 4-transmembrane (TM) glycoprotein. It contains a short N-terminal cytoplasmic region (aa 1-9), followed by four TM regions and another C-terminal cytoplasmic region (aa 183-202). There is one potential isoform variant that shows an alternative start site at Met60. Over aa 116-161, mouse TM4SF1 shares 73% and 96% aa sequence identity with human and rat TM4SF1, respectively.