

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TSPAN8 in Western blots.
Source	Monoclonal Rat IgG _{2B} Clone # 458811
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human TSPAN8 Met1-Lys237 (Ile35Val) Accession # AAH05246
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 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
Western Blot	2 µg/mL	See Below
Flow Cytometry	2.5 µg/10 ⁶ cells	See Below
Immunocytochemistry	8-25 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

Western Blot

Detection of Human TSPAN8 by Western Blot. Western blot shows lysates of COLO 205 human colorectal adenocarcinoma cell line and HT-29 human colon adenocarcinoma cell line. PVDF membrane was probed with 2 µg/mL of Rat Anti-Human TSPAN8 Monoclonal Antibody (Catalog # MAB4734) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). A specific band was detected for TSPAN8 at approximately 35 kDa (as indicated). This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.

Flow Cytometry

Detection of TSPAN8 in HT-29 Human Cell Line by Flow Cytometry. HT-29 human colon adenocarcinoma cell line was stained with Rat Anti-Human TSPAN8 Monoclonal Antibody (Catalog # MAB4734, filled histogram) or isotype control antibody (Catalog # MAB0061, open histogram), followed by Allophycocyanin-conjugated Anti-Rat IgG F(ab')₂ Secondary Antibody (Catalog # F0113).

Immunocytochemistry

TSPAN8 in HT-29 Human Cell Line. TSPAN8 was detected in immersion fixed HT-29 human colon adenocarcinoma cell line using Rat Anti-Human TSPAN8 Monoclonal Antibody (Catalog # MAB4734) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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

Tetraspanin-8 (TSPAN8), also known as TM4SF3 and human tumor-associated antigen CO-0029, is a member of the transmembrane 4 superfamily. It is a cell surface 27-34 kDa glycoprotein with 4 transmembrane segments, and a large extracellular loop (LEL) domain from amino acids (aa) 106-206. Both the N- and C-termini are intracellular. TSPAN8 is expressed by multiple tumor types as well as smooth and skeletal muscle cells, endothelial cells, hematopoietic progenitor cells and non-keratinized squamous epithelium. As with other TSPAN family molecules, TSPAN8 acts as an organizer of microdomains in membranes. Molecules that may be found in these domains include CD151 (another TSPAN family member), β 1 Integrins, Integrin α 4 β 6, EpCAM, and CD13. TSPAN8 would appear to remove Integrins from the cell surface, facilitating cell motility which, in the case of tumor cells, results in metastasis. TSPAN8 shares 53% aa sequence identity with both mouse and rat TSPAN8.