Human Transgelin/TAGLN Antibody

Monoclonal Mouse IgG_1 Clone # 859112

Catalog Number: MAB78861

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Transgelin/TAGLN in ELISAs and Western blots.
Source	Monoclonal Mouse IgG_1 Clone # 859112
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human Transgelin/TAGLN Ala2-Ser201 Accession # Q01995
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.

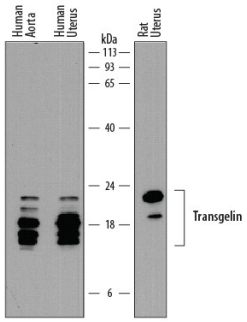
APPLICATIONS

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
Western Blot	0.5 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Simple Western	5 µg/mL	See Below

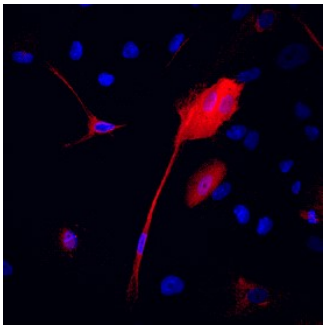
DATA

Western Blot



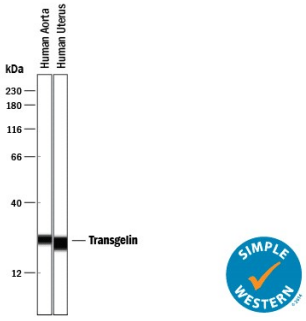
Detection of Human and Rat Transgelin/TAGLN by Western Blot. Western blot shows lysates of human aorta tissue, human uterus tissue, and rat uterus tissue. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human Transgelin/TAGLN Monoclonal Antibody (Catalog # MAB78861) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for Transgelin/TAGLN at approximately 16-24 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Transgelin/TAGLN in MCF 10A Human Cell Line. Transgelin/TAGLN was detected in immersion fixed MCF 10A human breast epithelial cell line using Mouse Anti-Human Transgelin/TAGLN Monoclonal Antibody (Catalog # MAB78861) 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 cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Simple Western



Detection of Human Transgelin/TAGLN by Simple Western™. Simple Western lane view shows lysates of human aorta tissue and human uterus tissue, loaded at 0.5 mg/mL. A specific band was detected for Transgelin/TAGLN at approximately 22-25 kDa (as indicated) using 5 µg/mL of Mouse Anti-Human Transgelin/TAGLN Monoclonal Antibody (Catalog # MAB78861). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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.** ● 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.

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BACKGROUND

TAGLN (Transgelin; also 22 kDa Actin-binding protein, WS3-10 and Smooth muscle protein 22 alpha) is a 22-24 kDa cytosolic member of the calponin (calcium-binding and calmodulin-binding troponin T-like protein) family of molecules. It is expressed in both visceral and vascular smooth muscle, fibroblasts, cardiac myocytes, and potentially in breast duct plus prostate epithelium. TAGLN is associated with the actin stress fibers and appears to both suppress MMP-9 production, and downmodulate Ca^{++}-independent smooth muscle contraction. Human TAGLN is 201 amino acids (aa) in length. It contains one CH/calponin homology domain (aa 24-137), and an actin-binding calponin-like repeat/CLIK (aa 175-200). There is one utilized phosphorylation site at Tyr193, plus two utilized acetylation sites in the N-terminus. Three potential isoform variants are reported, one that shows a alternative start site at Met111, a second that contains a new start site 10 aa upstream of the standard site, and a third that possesses a 58 aa substitution for aa 97-201. Full-length human and mouse TAGLN share 97% aa sequence identity.

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