Human/Mouse/Rat Transgelin/TAGLN Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7886

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat Transgelin/TAGLN in Western blots. In direct ELISAs, less than 5% cross-reactivity with recombinant human (rh) TAGLN2 and rhTAGLN3 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
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 as a 0.2 μm filtered solution in PBS.

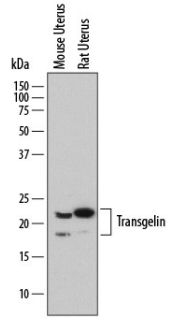
APPLICATIONS

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	5-15 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below
Simple Western	25 µg/mL	See Below

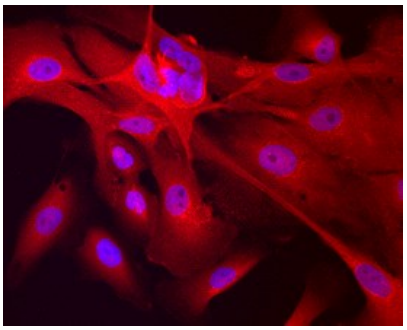
DATA

Western Blot



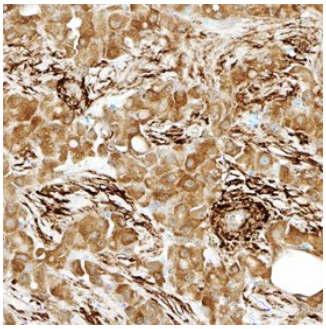
Detection of Mouse and Rat Transgelin/TAGLN by Western Blot. Western blot shows lysates of mouse uterus tissue and rat uterus tissue. PVDF membrane was probed with 0.5 µg/mL of Sheep Anti-Human/Mouse/Rat Transgelin/TAGLN Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7886) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for Transgelin/TAGLN at approximately 18-22 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



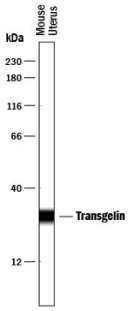
Transgelin/TAGLN in MCF 10A Human Cell Line. Transgelin/TAGLN was detected in immersion fixed MCF 10A human breast epithelial cell line using Sheep Anti-Human/Mouse/Rat Transgelin/TAGLN Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7886) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunohistochemistry



Transgelin/TAGLN in Human Liver Cancer Tissue. Transgelin/TAGLN was detected in immersion fixed paraffin-embedded sections of human liver cancer tissue using Sheep Anti-Human/Mouse/Rat Transgelin/TAGLN Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7886) at 1.7 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific staining was localized to connective tissue. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

Simple Western



Detection of Mouse Transgelin/TAGLN by Simple Western™. Simple Western lane view shows lysates of mouse uterus tissue, loaded at 0.2 mg/mL. A specific band was detected for Transgelin/TAGLN at approximately 29 kDa (as indicated) using 25 µg/mL of Sheep Anti-Human/Mouse/Rat Transgelin/TAGLN Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7886) followed by 1:50 dilution of HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 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.

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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