

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human/Mouse/Rat                                                                                                                                                                                                                                                             |
| <b>Specificity</b>        | 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.                                                                                               |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human Transgelin/TAGLN<br>Ala2-Ser201<br>Accession # Q01995                                                                                                                                                                             |
| <b>Conjugate</b>          | Alexa Fluor 532<br>Excitation Wavelength: 534 nm<br>Emission Wavelength: 553 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### 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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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<sup>++</sup>-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 an 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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