abcam

ab212857

Anti-TAGLN/Transgelin antibody [TAGLN/247] - BSA and Azide free

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Full Length Protein corresponding to Human TAGLN. Database link Q01995
Carrier free	Yes
Clone number	TAGLN/247
Purification technique	Affinity purification Protein G
Light chain type	kappa
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	ab212857 is purified from Bioreactor Concentrate by Protein A/G.

Reactivity data

Flow Cyt

Expected

Species	Human
Dilution info	1 µg for 10^6 Cells
Notes	(in 0.1 ml).

Predicted

Species	Mouse, Rat, Rabbit, Cow, Pig
Dilution info	-
Notes	-

ICC/IF

Expected

Species	Human
Dilution info	1-2 µg/mL
Notes	-

Predicted

Species	Mouse, Rat, Rabbit, Cow, Pig
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	0.5-1 µg/mL
Notes	(Primary incubation for 30 minutes at RT) Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat, Rabbit, Cow, Pig

Dilution info	-
Notes	-

Target data

See full target information TAGLN

Function	Actin cross-linking/gelling protein (By similarity). Involved in calcium interactions and contractile properties of the cell that may contribute to replicative senescence.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	TAGLN also known as Transgelin or SM22-alpha is a protein with a molecular weight of approximately 22 kDa. Structurally it belongs to the calponin family and contains an ACT domain which is critical for its actin-binding ability. It is expressed abundantly in smooth muscle cells where it stabilizes cytoskeletal dynamics by interacting with actin filaments. TAGLN also shows expression in fibroblasts and myofibroblasts supporting structural integrity and cellular movement.
Biological function summary	The regulatory involvement of TAGLN in smooth muscle contraction influences cellular activities essential for vascular function. This protein modulates remodeling and differentiation within smooth muscle cells. It can associate with actin and calponin to form complexes that regulate the stability of cytoskeletal structures ensuring effective cellular responses to mechanical stimuli. By linking signal transduction to cytoskeletal mechanics TAGLN facilitates the maintenance of cell shape and tension.

Pathways	TAGLN plays a role in the regulation of the RhoA/Rho kinase pathway contributing to actin cytoskeleton organization and smooth muscle contraction. Additionally it is involved in the WNT signaling pathway influencing cell proliferation and differentiation. In these pathways TAGLN works with proteins like RhoA and beta-catenin to transmit signals from the extracellular environment to the nucleus impacting gene expression and cellular responses.
Associated diseases and disorders	Disruptions in TAGLN expression associate with vascular diseases and certain cancers. Downregulation or altered expression patterns can lead to smooth muscle cell dysfunction contributing to atherosclerosis. Similarly TAGLN interacts with proteins such as fibronectin and MMP2 in cancer where its altered expression could promote metastasis and tumor progression. Understanding these connections highlights TAGLN's potential as a target for therapeutic interventions in these diseases.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

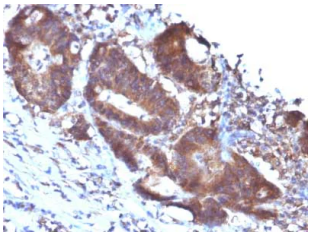
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

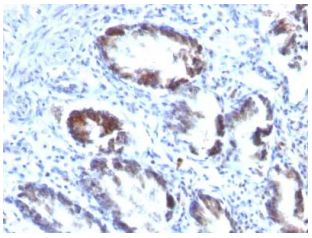
2 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TAGLN/Transgelin antibody [TAGLN/247] - BSA and Azide free (ab212857)

TAGLN/Transgelin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-TAGLN/Transgelin antibody

Immunohistochemical analysis of formalin-fixed, paraffin-embedded Human colon carcinoma tissue labeling SM22 alpha with ab212857 at 1µg/ml.



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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.