abcam

ab237239

Alexa Fluor® 647 Anti-Collagen III antibody [EPR17673]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR17673
Purification technique	Affinity purification Protein A
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/1000
Notes	This product gave a positive signal in HeLa cells fixed with 100% methanol (5 min)

Species	Mouse
Dilution info	1/50
Notes	-

Species	Rat
Dilution info	1/50
Notes	-

Flow Cyt (Intra)

Expected

Species	Human, Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information COL3A1

Function	Collagen type III occurs in most soft connective tissues along with type I collagen. Involved in regulation of cortical development. Is the major ligand of ADGRG1 in the developing brain and binding to ADGRG1 inhibits neuronal migration and activates the RhoA pathway by coupling ADGRG1 to GNA13 and possibly GNA12.

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, Stable for 12 months at -20°C, Store in the dark

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.

Supplementary info

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

Activity summary	Collagen type III also known as COL3 and collagen III is a fibrillar protein with an approximate molecular mass of 138 kDa. This protein is a significant component of the extracellular matrix and is mainly expressed in connective tissues like skin lungs and vascular walls. You can also find it in developing tissues and fibrotic tissues reflecting its role during tissue growth and repair processes.
Biological function summary	Collagen type III contributes to maintaining the structural integrity of tissues. It forms a complex with collagen type I providing a scaffold that ensures mechanical strength and stability to tissues. This structural pairing of collagen type I and III

	highlights their cooperative function in supporting the extracellular matrix and regulating cell behavior in tissue repair and wound healing processes.
Pathways	Collagen type III is integral to the processes of tissue repair and fibrosis pathways. It interacts closely with proteins such as fibronectin and integrins contributing to the cellular adhesion and signaling pathways important for fibroblast function and migration. These interactions reflect its essential role in matrix assembly and stability influencing how cells respond to injury and repair damaged tissues.
Associated diseases and disorders	Collagen type III mutations or dysregulation associate with vascular Ehlers-Danlos syndrome and keloids. In vascular Ehlers-Danlos syndrome defective collagen III compromises vessel wall integrity resulting in vascular fragility and rupture. In the context of keloids excessive collagen III accumulation in the skin illustrates its role in pathological fibrosis. Collagen type I is another protein that plays an important role in these conditions contributing along with collagen type III to the altered structural and functional properties observed in these disorders.

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

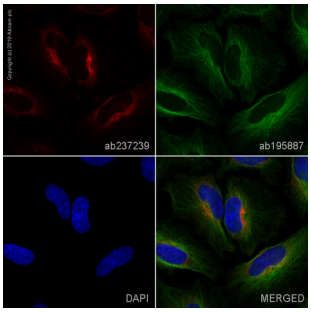
We do not recommend this combination. It is not covered by our product promise.

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.

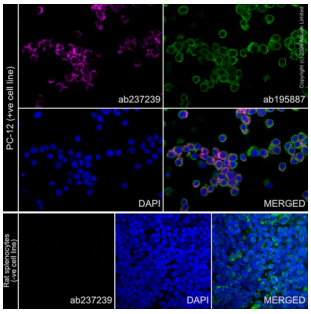
3 product images



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-Collagen III antibody [EPR17673] (ab237239)

Collagen III Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Collagen III antibody

ab237239 staining Collagen III in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab237239 at 1/1000 dilution (shown in red) and ab195887, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

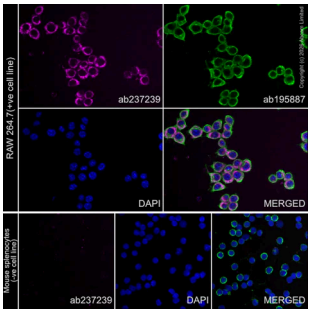


Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-Collagen III antibody [EPR17673] (ab237239)

Collagen III Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Collagen III antibody

Immunofluorescent analysis of 4% Paraformaldehyde fixed 0.1% Triton X-100 permeabilized PC-12 (rat adrenal gland pheochromocytoma cells) labelling Collagen III with ab237239 at 1/50 (10.0 µg/ml). ab195887 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 488) was used as a counterstain at 1/200 dilution (2.5µg/ml). Confocal image showing cytoplasmic staining in PC-12 cell line and no staining in rat splenocytes (shown in magenta). The counterstain was observed in green. Nuclear DNA was labelled with DAPI (shown in blue).
Negative control: Rat splenocytes.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-Collagen III antibody [EPR17673] (ab237239)

Collagen III Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Collagen III antibody

Immunofluorescent analysis of 4% Paraformaldehyde fixed 0.1% Triton X-100 permeabilized RAW 264.7 (mouse Abelson murine leukemia virus-induced tumor macrophages) labelling Collagen III with ab237239 at 1/50 (10.0 µg/ml). ab195887 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 488) was used as a counterstain at 1/200 dilution (2.5µg/ml). Confocal image showing cytoplasmic staining in RAW 264.7 cell line and no staining in mouse splenocytes (shown in magenta). The counterstain was observed in green. Nuclear DNA was labelled with DAPI (shown in blue).
Negative control: Mouse splenocytes.

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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