

Anti-COL18A1 antibody [EPR23481-21] - BSA and Azide free ab275750

Recombinant RabMAb

[7 Images](#)

Overview

Product name	Anti-COL18A1 antibody [EPR23481-21] - BSA and Azide free
Description	Rabbit monoclonal [EPR23481-21] to COL18A1 - BSA and Azide free
Host species	Rabbit
Specificity	<p>This antibody does not recognise the Endostatin chain.</p> <p>This antibody (ab275750 [EPR23481-21]) is a distinct clone from ab275394 [EPR23481-240].</p>
Tested applications	Suitable for: IP, ICC/IF, IHC-P, Flow Cyt (Intra), WB
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HepG2 and Huh7 whole cell lysates. IHC-P: Human kidney and bladder cancer tissue. ICC/IF: HepG2 cells. Flow Cyt (intra): HepG2 cells. IP: Huh7 whole cell lysate.
General notes	<p>ab275750 is the carrier-free version of ab275746.</p> <p>Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p>

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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C.
Storage buffer	Constituent: 100% PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR23481-21
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab275750 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IP		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		Use at an assay dependent concentration. Detects a band of approximately 178 kDa (predicted molecular weight: 178 kDa).

Target

Function	COLA18A probably plays a major role in determining the retinal structure as well as in the closure of the neural tube. Endostatin potently inhibits endothelial cell proliferation and angiogenesis. May inhibit angiogenesis by binding to the heparan sulfate proteoglycans involved in growth factor signaling.
Tissue specificity	Present in multiple organs with highest levels in liver, lung and kidney.
Involvement in disease	Knobloch syndrome 1
Sequence similarities	Belongs to the multiplexin collagen family. Contains 1 FZ (frizzled) domain. Contains 1 laminin G-like domain.

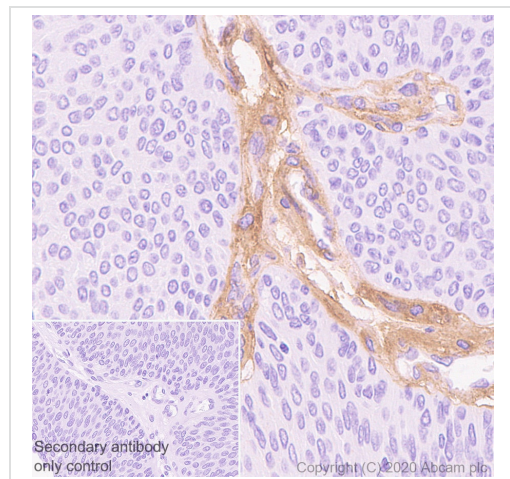
Post-translational modifications

Prolines at the third position of the tripeptide repeating unit (G-X-Y) of the triple-helical regions are hydroxylated.

Cellular localization

Secreted, extracellular space, extracellular matrix.

Images



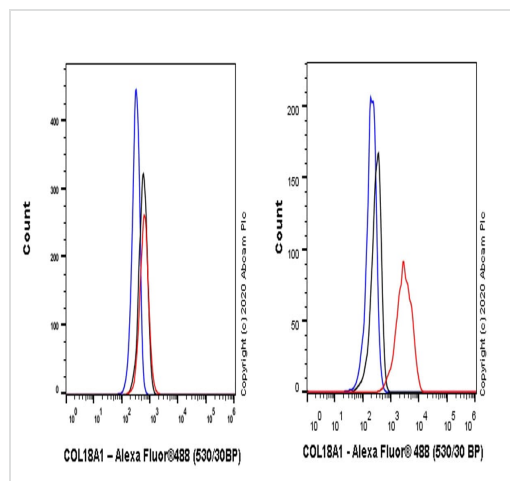
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COL18A1 antibody [EPR23481-21] - BSA and Azide free (ab275750)

This data was developed using [ab275746](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human bladder cancer tissue labeling COL18A1 with [ab275746](#) at 1/4000 (0.134 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)). Positive staining on blood vessels of human bladder cancer (PMID:21815140). The section was incubated with [ab275746](#) for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB ([ab209101](#)).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.



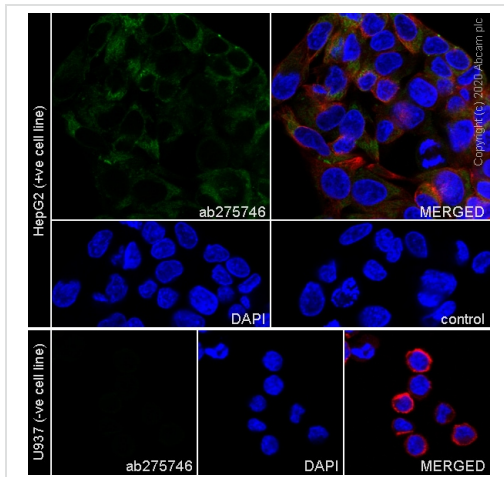
Flow Cytometry (Intracellular) - Anti-COL18A1 antibody [EPR23481-21] - BSA and Azide free (ab275750)

This data was developed using [ab275746](#), the same antibody clone in a different buffer formulation.

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized U-937 (Human histiocytic lymphoma monocyte, Left) / HepG2 (Human hepatocellular carcinoma epithelial cell, Right) cells labelling COL18A1 with [ab275746](#) at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG ([ab172730](#)) isotype control (Black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

A Goat anti rabbit IgG (Alexa Fluor[®]488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody.

Negative control: U937 cell (PMID: 15451191).

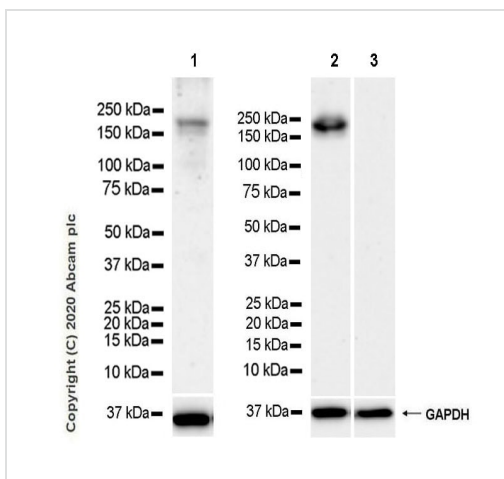


Immunocytochemistry/ Immunofluorescence - Anti-COL18A1 antibody [EPR23481-21] - BSA and Azide free (ab275750)

This data was developed using **ab275746**, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HepG2 cells labelling COL18A1 with **ab275746** at 1/50 (8.26 ug/ml) dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in HepG2 cells. **Negative control:** U937 cell (PMID: 15451191). **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Western blot - Anti-COL18A1 antibody [EPR23481-21] - BSA and Azide free (ab275750)

All lanes : Anti-COL18A1 antibody [EPR23481-21] (**ab275746**) at 1/1000 dilution

Lane 1 : HepG2 (human hepatocellular carcinoma epithelial cell), whole cell lysate at 20 µg

Lane 2 : Huh7 (human hepatocellular carcinoma epithelial cell), whole cell lysate at 40 µg

Lane 3 : U937 (human histiocytic lymphoma monocyte), whole cell lysate at 40 µg

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051**) at 1/100000 dilution

Predicted band size: 178 kDa

Observed band size: 178 kDa

This data was developed using **ab275746**, the same antibody clone in a different buffer formulation.

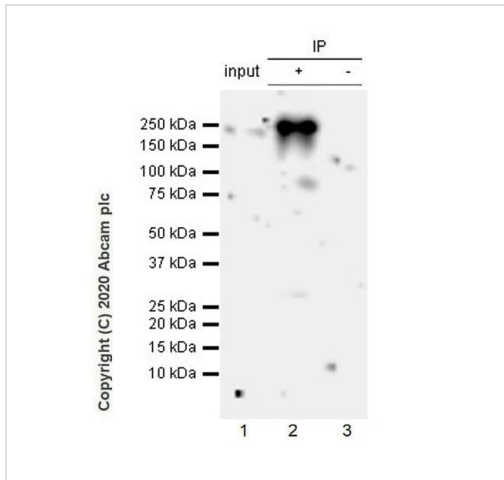
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The expression profile observed is consistent with what has been described in the literature (PMID: 11581192, 15451191).

Negative control: U937 (PMID:15451191).

The lanes 1 of blot were developed using a higher sensitivity ECL substrate.

Exposure time: Lane 1: 3 minutes Lane 2-3: 70 seconds.



Immunoprecipitation - Anti-COL18A1 antibody
[EPR23481-21] - BSA and Azide free (ab275750)

This data was developed using **ab275746**, the same antibody clone in a different buffer formulation.

COL18A1 was immunoprecipitated from 0.35 mg Huh7 (human hepatocellular carcinoma epithelial cell), whole cell lysate with **ab275746** at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using **ab275746** at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/5000 dilution.

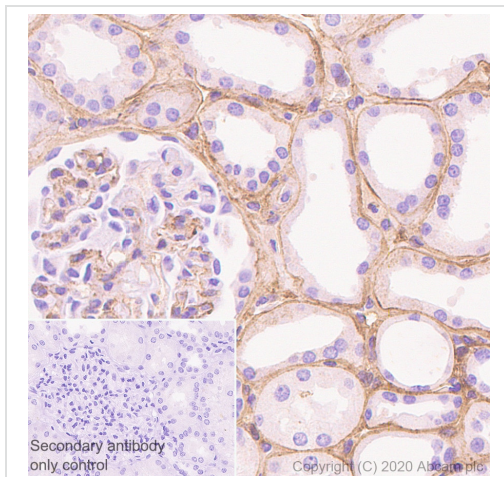
Lane 1: Huh7 (human hepatocellular carcinoma epithelial cell), whole cell lysate 10 ug

Lane 2: **ab275746** IP in Huh7 whole cell lysate

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of 275746 in Huh7 whole cell lysate

Blocking and dilution buffer and concentration: 5% NFD/MTBST.

Exposure time: 3 minutes.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-COL18A1 antibody
[EPR23481-21] - BSA and Azide free (ab275750)

This data was developed using **ab275746**, the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling COL18A1 with **ab275746** at 1/4000 (0.134 ug/ml) dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Positive staining on human kidney (PMID: 12588956). The section was incubated with **ab275746** for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-COL18A1 antibody [EPR23481-21] - BSA and Azide free (ab275750)

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