abcam

Product datasheet

Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free ab221606

KO VALIDATED Recombinant RabMAb

3 References 17 Images

Overview

Product name	Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free
Description	Rabbit monoclonal [EPR7854] to Integrin alpha 5 - Low endotoxin, Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, IP, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Human kidney, human cerebral cortex, mouse cerebral cortex, and rat cerebral cortex tissues. ICC/IF: U937, MCF7 and wild-type HAP1 cells. Flow Cyt (intra): HeLa cells. IP: HeLa cells.
General notes	ab221606 is the carrier-free version of **ab150361**. 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. 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. 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. 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. 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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Our **Low endotoxin, azide-free formats** have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR7854
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab221606 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

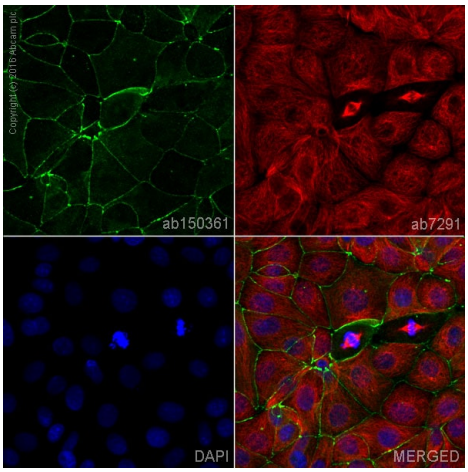
Application	Abreviews	Notes
WB		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See **IHC antigen retrieval protocols**
ICC/IF		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration. **ab199376** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Target

Function	Integrin alpha-5/beta-1 is a receptor for fibronectin and fibrinogen. It recognizes the sequence R-G-D in its ligands. In case of HIV-1 infection, the interaction with extracellular viral Tat protein seems to enhance angiogenesis in Kaposi's sarcoma lesions.
Sequence similarities	Belongs to the integrin alpha chain family. Contains 7 FG-GAP repeats.

Cellular localization Membrane.

Images



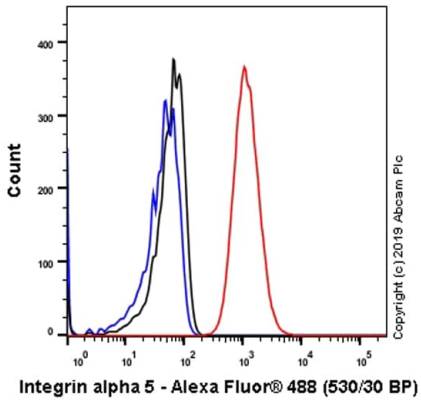
Immunocytochemistry/ Immunofluorescence - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

ab150361 staining Integrin alpha 5 in MCF7 cells. The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Tween 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 with **ab150361** at 1µg/ml concentration and **ab7291** at 1µg/ml concentration overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to Rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to Mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (showed in pseudocolour red) . Nuclear DNA was labelled in blue with DAPI.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).

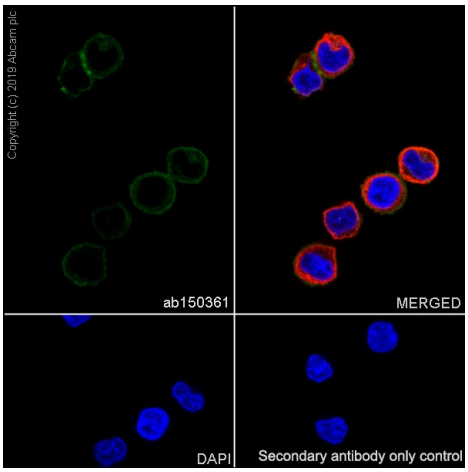
Immunoprecipitation - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

ab150361 (Purified) at 1:20 dilution (1 µg) immunoprecipitating Integrin alpha 5 in HeLa whole cell lysate.
Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10 µg
Lane 2 (+): **ab150361** & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of **ab150361** in HeLa whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1:5000 dilution.
Blocking and diluting buffer: 5% NFDM/TBST.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**)



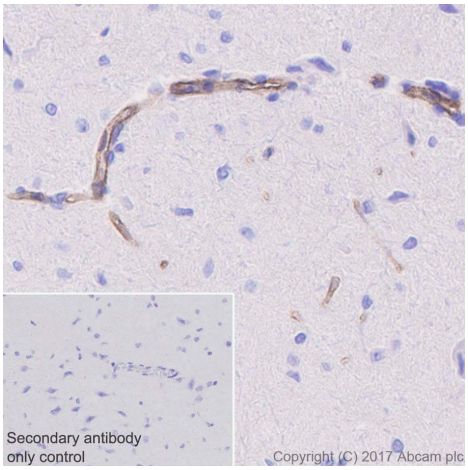
Flow Cytometry (Intracellular) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Integrin alpha 5 with purified **ab150361** at 1/20 dilution (10 µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue). This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**)



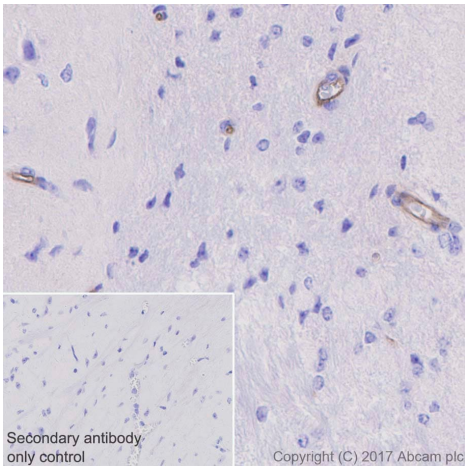
Immunocytochemistry/ Immunofluorescence - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunocytochemistry/ Immunofluorescence analysis of U937 (Human histiocytic lymphoma monocyte) cells labeling Integrin alpha 5 with purified **ab150361** at 1:50 dilution (4.3 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**)



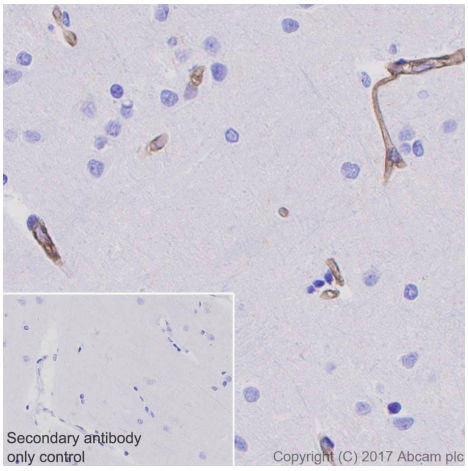
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat cerebral cortex tissue sections labeling Integrin alpha 5 with purified **ab150361** at 1:400 dilution (0.54 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

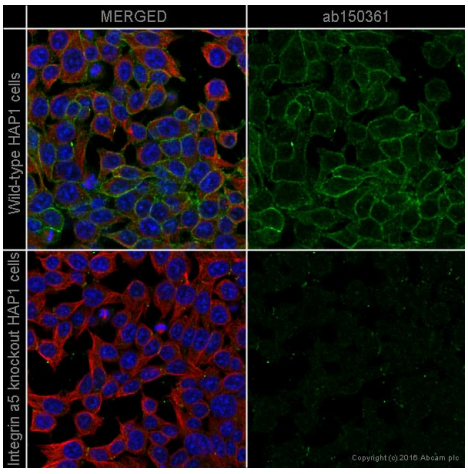
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse cerebral cortex tissue sections labeling Integrin alpha 5 with purified **ab150361** at 1:400 dilution (0.54 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cerebral cortex tissue sections labeling Integrin alpha 5 with purified **ab150361** at 1:400 dilution (0.54 µg/ml). Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.

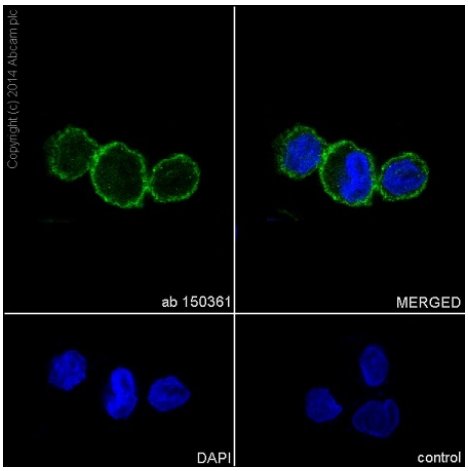
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**)



Immunocytochemistry/ Immunofluorescence - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

ab150361 staining Integrin alpha 5 in wild-type HAP1 cells (top panel) and ITGA5 knockout HAP1 cells (bottom panel). The cells were fixed with 100% methanol (5min), permeabilized with 0.1% Tween 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 with **ab150361** at 1/250 dilution and **ab7291** at 1µg/ml concentration overnight at +4°C, followed by a further incubation at room temperature for 1h with a goat secondary antibody to Rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to Mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (showed in pseudocolour red) . Nuclear DNA was labelled in blue with DAPI.

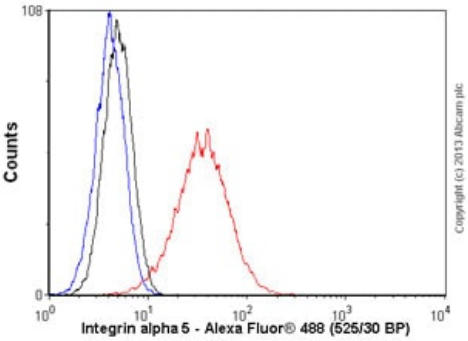
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).



Immunocytochemistry/ Immunofluorescence - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized U937 (Human histiocytic lymphoma) cells labeling Integrin alpha 5 with unpurified **ab150361** at 1/500 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor 488) (**ab150077**) secondary antibody at 1/400 dilution (green). Confocal image showing mainly membrane staining on U937 cell line. The nuclear counterstain is DAPI (blue).

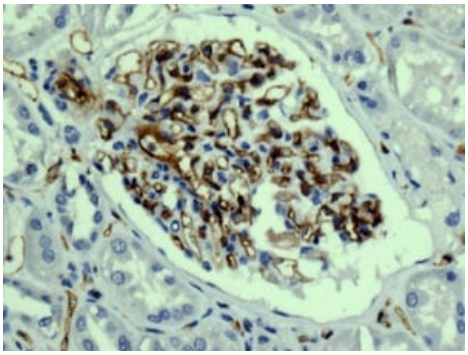
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).



Flow Cytometry (Intracellular) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Overlay histogram showing HeLa cells stained with unpurified **ab150361** (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (**ab150361**, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was goat anti-rabbit Alexa Fluor 488 IgG (H&L) (**ab150077**) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (0.1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in HeLa cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).

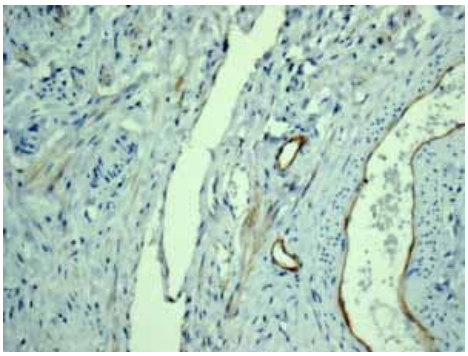


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunohistochemical analysis of paraffin embedded Human kidney tissue labelling Integrin alpha 5 with unpurified **ab150361** antibody at a dilution of 1/100.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

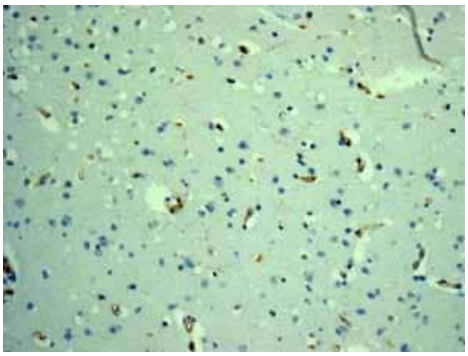


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunohistochemical analysis of paraffin embedded Human Vessels tissue using unpurified **ab150361** showing +ve staining.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

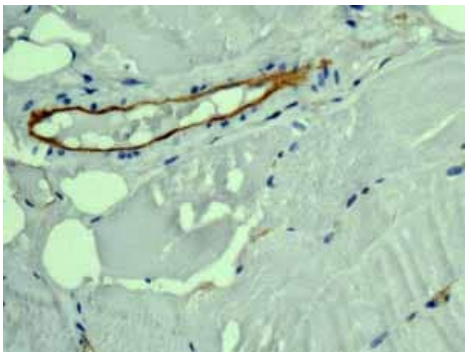


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunohistochemical analysis of paraffin embedded Human Brain vessels tissue using unpurified **ab150361** showing +ve staining.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

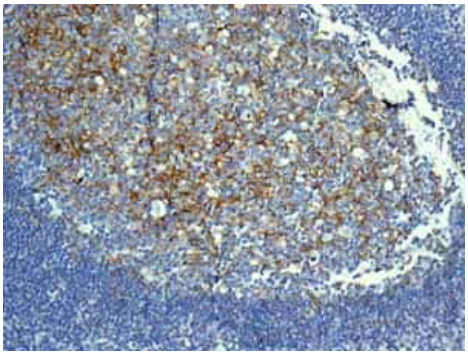


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunohistochemical analysis of paraffin embedded Human Skeletal muscle vessel tissue using unpurified **ab150361** showing +ve staining.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

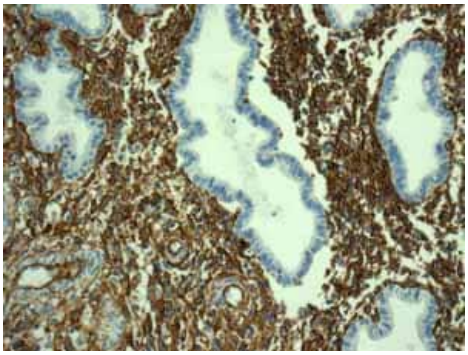


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunohistochemical analysis of paraffin embedded Normal Human Tonsil tissue using unpurified **ab150361** showing +ve staining.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

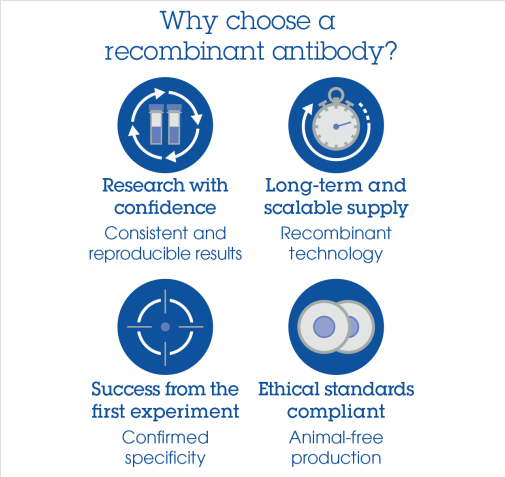


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

Immunohistochemical analysis of paraffin embedded Normal Human Uterus tissue using unpurified **ab150361** showing +ve staining.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab150361**).

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Anti-Integrin alpha 5 antibody [EPR7854] - Low endotoxin, Azide free (ab221606)

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