abcam

ab236216

Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free

Recombinant | RabMAb | Advanced Validation

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	SP27
Purification technique	Affinity purification Protein A/G
Concentration	1.006 - 1.029 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS by protein A/G.

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	-
Notes	-

Expected

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

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Incubate for 30 min at room temperature. Staining of formalin fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at room temperature for 20 min.

Species	Mouse
Dilution info	-
Notes	Incubate for 30 min at room temperature. Staining of formalin fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at room temperature for 20 min.

Species	Rat
Dilution info	-
Notes	Incubate for 30 min at room temperature. Staining of formalin fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0 for 10 min followed by cooling at room temperature for 20 min.

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Notes	-

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

IHC-Fr

Tested

Species	Mouse, Rat
Dilution info	-
Notes	-

Expected

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

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

mIHC

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

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

Predicted

Species	Cow, Dog, Pig
Dilution info	-
Notes	-

Target data

See full target information KRT5

Function Required for the formation of keratin intermediate filaments in the basal epidermis and maintenance of the skin barrier in response to mechanical stress (By similarity). Regulates the recruitment of Langerhans cells to the epidermis, potentially by modulation of the abundance of macrophage chemotactic cytokines, macrophage inflammatory cytokines and CTNND1 localization in keratinocytes (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab236216 is the carrier-free version of ab64081.

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. 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.

Compatibility
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.

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

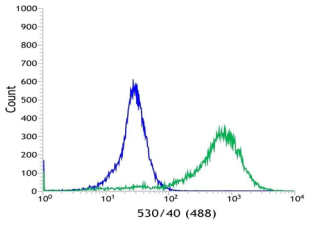
We do not recommend this combination. It is not covered by our product promise.

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.

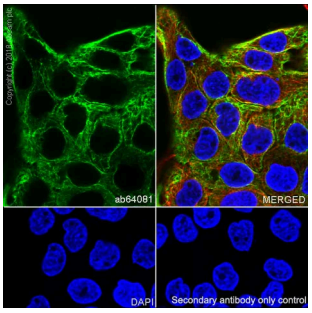
15 product images



Flow Cytometry (Intracellular) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 5 antibody

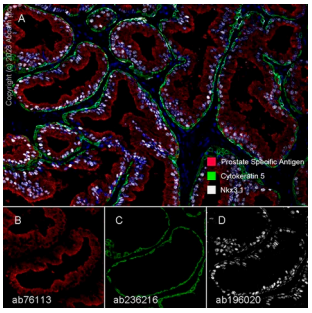
Flow cytometric analysis of A431 (human epidermoid carcinoma cell line) cell line labeling Cytokeratin 5 with ab64081 at 1/100 dilution (green) compared with a negative control of rabbit IgG (blue).
This image was generated using ab64081, the same clone, but with a different buffer formulation.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

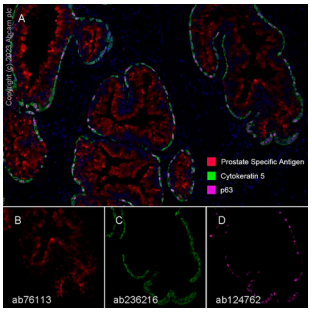
Cytokeratin 5 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 5 antibody

Immunocytochemistry/ Immunofluorescence analysis of A431 (human epidermoid carcinoma epithelial cell) cells labeling Cytokeratin 5 with purified ab64081 at 1/100 (2.5 µg/ml). Cells were fixed in 4% paraformaldehyde and permeabilized with 0.1% Triton X-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 was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
This image was generated using ab64081, the same clone, but with a different buffer formulation.



Multiplex immunohistochemistry - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

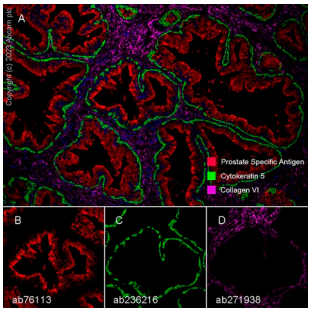
Fluorescence multiplex immunohistochemical analysis of human prostate gland tissue (formalin/PFA-fixed paraffin-embedded section). Panel A: merged staining of anti-Prostate Specific Antigen (ab76113, red; Opal™690), anti-Cytokeratin 5 (ab236216, green; Opal™520) and anti-Nkx3.1 (ab196020, gray; Opal™570) on human prostate gland tissue. Panel B: anti-Prostate Specific Antigen stained on cytoplasm of luminal cells. Panel C: anti-Cytokeratin 5 stained on basal cells. Panel D: anti-p63 stained on nucleus of luminal cells. Opal Polymer HRP Ms + Rb was used as a secondary antibody. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. The section was incubated in three rounds of staining: in the order of ab76113 (1/2000), ab236216 (1/400) and ab196020 (1/2000) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) was used for 20 mins. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Leica SP8 confocal microscope.



Multiplex immunohistochemistry - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

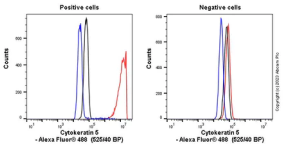
Fluorescence multiplex immunohistochemical analysis of human prostate gland tissue (formalin/PFA-fixed paraffin-embedded section). Panel A: merged staining of anti-p63 (ab124762, magenta; Opal™690), anti-Cytokeratin 5 (ab236216, green; Opal™520) and anti-Prostate Specific Antigen (ab76113, red; Opal™570) on human prostate gland tissue. Panel B: anti-Prostate Specific Antigen stained on luminal cells. Panel C: anti-Cytokeratin 5 stained on cytoplasm of basal cells. Panel D: anti-p63 stained on nucleus of basal cells. Opal Polymer HRP Ms + Rb was used as a

secondary antibody. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. The section was incubated in three rounds of staining: in the order of ab124762 (1/5000), ab236216 (1/400), and ab76113 (1/2000) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) was used for 20 mins. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Leica SP8 confocal microscope. This image was generated using ab64081, the same clone, but with a different buffer formulation.



Multiplex immunohistochemistry - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Fluorescence multiplex immunohistochemical analysis of human prostate gland tissue (formalin/PFA-fixed paraffin-embedded section). Panel A: merged staining of anti-Collagen VI (ab271938, magenta; Opal™690), anti-Cytokeratin 5 (ab236216, green; Opal™520) and anti-Prostate Specific Antigen (ab76113, red; Opal™570) on human prostate gland tissue. Panel B: anti-Prostate Specific Antigen stained on luminal cells. Panel C: anti-Cytokeratin 5 stained on basal cells. Panel D: anti-Collagen VI stained on stroma. Opal Polymer HRP Ms + Rb was used as a secondary antibody. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. The section was incubated in three rounds of staining: in the order of ab271938 (1/500), ab236216 (1/400), and ab76113 (1/2000) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. Each round was followed by a separate fluorescent tyramide signal amplification system. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) was used for 20 mins. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Leica SP8 confocal microscope. This image was generated using ab64081, the same clone, but with a different buffer formulation.



Flow Cytometry (Intracellular) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 5 antibody

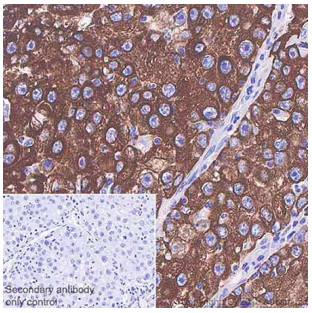
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab64081).

Flow cytometry overlay histogram showing left A-431 positive cells and right negative MCF7 stained with ab64081 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab64081) (1x 106 in 100µl at 1.0µg/ml (1/2080)) for 30min at 22°C.

The secondary antibody Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed was incubated at 1/4000 for 30min at 22°C

Isotype control antibody (black line) was Recombinant Rabbit IgG, monoclonal [EPR25A] - Isotype Control used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

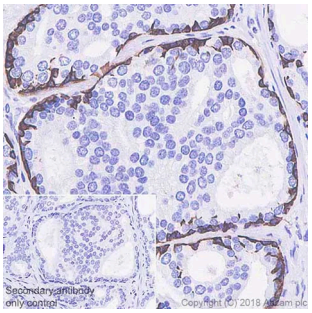
Acquisition of >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

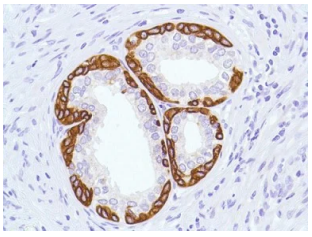
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung squamous cell cancer tissue sections labeling Cytokeratin 5 with ab64081 at 1/100 dilution (2.46 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Cytoplasmic staining on tumor cells of human lung squamous cell cancer, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab64081 for 30 mins at room temperature. This image was generated using ab64081, the same clone, but with a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

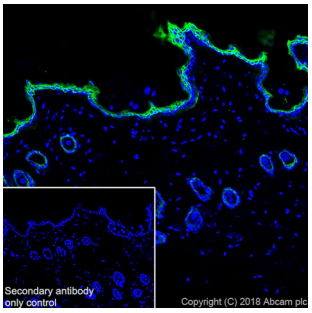
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human prostate cancer
tissue sections labeling Cytokeratin 5 with ab64081 at 1/100 dilution (2.46 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Positive staining on human prostate cancer, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab64081 for 30 mins at room temperature. This image was generated using ab64081, the same clone, but with a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

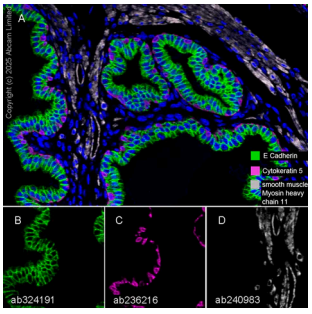
Formalin-fixed, paraffin-embedded human prostate tissue stained for Cytokeratin 5 using ab64081 at 1/100 dilution in immunohistochemical analysis.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab64081).



Immunohistochemistry (Frozen sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Immunohistochemistry (Frozen sections) staining using rabbit Anti-Cytokeratin 5 antibody

Immunohistochemistry (Frozen) analysis of rat skin tissue section labeling Cytokeratin 5 with purified ab64081 at 1/30 (8.2 µg/ml). Sections were fixed in 4% paraformaldehyde and permeabilized with 0.2% Triton X-100. Antigen retrieval was Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
This image was generated using ab64081, the same clone, but with a different buffer formulation.



Multiplex immunohistochemistry - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Multiplex immunohistochemistry staining of Mouse Prostate tissue using rabbit Anti-Cytokeratin 5 antibody

Immunohistochemistry analysis of Formalin/PFA-fixed paraffin-embedded sections Mouse Prostate tissue labelling E Cadherin with ab324191 at 1:500 dilution (B), Cytokeratin 5 with ab236216 at 1:1500 dilution (C) and smooth muscle Myosin heavy chain 11 with ab240983 at 1:4000 dilution (D). Opal Polymer HRP Ms + Rb was used as a secondary antibody, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-E Cadherin (green; Opal™690), anti-Cytokeratin 5 (magenta; Opal™520) and anti-smooth muscle Myosin heavy chain 11 (gray; Opal™570) on mouse prostate.

Panel B: anti-E Cadherin staining epithelium in mouse prostate.

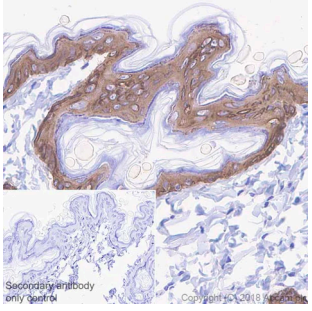
Panel C: ant-Cytokeratin 5 staining basal cells in mouse prostate.

Panel D: ant-smooth muscle Myosin heavy chain 11 staining smooth muscle in mouse prostate.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab324191, ab236216 and ab240983 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



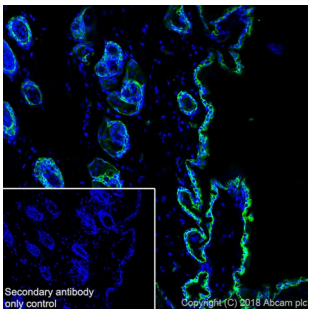
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Rat skin tissue sections labeling Cytokeratin 5 with ab64081 at 1/100 dilution (2.46 µg/ml). Heat mediated

antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Cytoplasmic staining on rat skin, performed on a Leica Biosystems BOND™ RX instrument.
The section was incubated with ab64081 for 30 mins at room temperature.

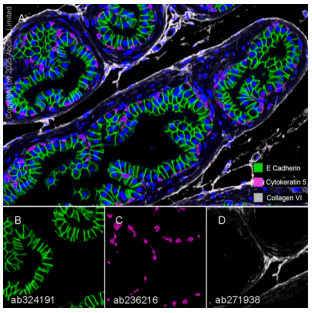
This image was generated using ab64081, the same clone, but with a different buffer formulation.



Immunohistochemistry (Frozen sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Immunohistochemistry (Frozen sections) staining using rabbit Anti-Cytokeratin 5 antibody

Immunohistochemistry (Frozen) analysis of mouse skin tissue section labeling Cytokeratin 5 with purified ab64081 at 1/30 (8.2 µg/ml). Sections were fixed in 4% paraformaldehyde and permeabilized with 0.2% Triton X-100. Antigen retrieval was Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1/1000 (2 µg/ml) dilution. DAPI was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.
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Multiplex immunohistochemistry - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Multiplex immunohistochemistry staining of Mouse Prostate tissue using rabbit Anti-Cytokeratin 5 antibody

Immunohistochemistry analysis of Formalin/PFA-fixed paraffin-embedded sections Mouse Prostate tissue labelling E Cadherin with ab324191 at 1:500 dilution (B), Cytokeratin 5 with ab236216 at 1:1500 dilution (C) and Collagen VI with ab271938 at 1:2000 dilution (D). Opal Polymer HRP Ms + Rb was used as a secondary antibody, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-E Cadherin (green; Opal™690), anti-Cytokeratin 5 (magenta; Opal™520) and anti-Collagen VI (gray; Opal™570) on mouse prostate.

Panel B: anti-E Cadherin staining epithelium in mouse prostate.

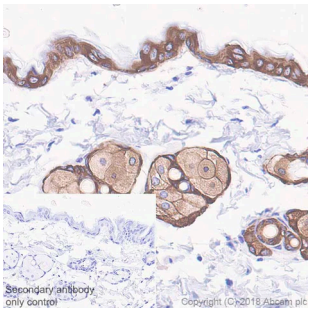
Panel C: ant-Cytokeratin 5 staining basal cells in mouse prostate.

Panel D: ant-Collagen VI staining stoma in mouse prostate.

Nuclear DNA was labelled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab324191, ab236216 and ab271938 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse skin tissue sections labeling Cytokeratin 5 with ab64081 at 1/100 dilution (2.46 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Hematoxylin was used as a counterstain. Cytoplasmic staining on mouse skin, performed on a Leica Biosystems BOND™ RX instrument
The section was incubated with ab64081 for 30 mins at room temperature. This image was generated using ab64081, the same clone, but with a different buffer formulation.

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