abcam

Product datasheet

Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free ab236216

Recombinant RabMAb

1 Abreviews 14 Images

Overview

Product name	Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free
Description	Rabbit monoclonal [SP27] to Cytokeratin 5 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** IHC-P, WB, mIHC, Flow Cyt (Intra), ICC/IF, IHC-Fr, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Cow, Dog, Pig
Immunogen	Synthetic peptide within Human Cytokeratin 5 (C terminal). The exact sequence is proprietary. Database link: **P13647**
Positive control	WB: HepG2 whole cell lysate (**ab166833**), A431 whole cell lysate. IHC-P: Human prostate adenocarcinoma, prostate, thymus, skin, pancreatic adenocarcinoma, lung, lung squamous cell carcinoma, breast, cervical squamous cell carcinoma, bladder and bladder transtitional cell carcinoma tissue. Mouse skin and Rat skin tissues. IHC-Fr: Mouse and rat skin tissue section.Flow Cyt: A431 cells. ICC/IF: A431 cells. mIHC: Human prostate gland tissues.
General notes	ab236216 is the carrier-free version of **ab64081**. 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**.

This product is FOR RESEARCH USE ONLY. For commercial use, please contact partnerships@abcam.com.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A/G purified
Purification notes	Purified from TCS by protein A/G.
Clonality	Monoclonal
Clone number	SP27
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab236216 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
IHC-P	★★★★★ (1)	Use at an assay dependent concentration. 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.
WB		Use at an assay dependent concentration. Predicted molecular weight: 62 kDa.
mIHC		Use at an assay dependent concentration.
Flow Cyt (Intra)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration.

Target

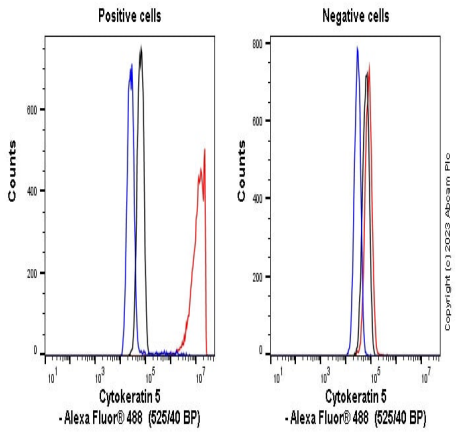
Involvement in disease

Defects in KRT5 are a cause of epidermolysis bullosa simplex Dowling-Meara type (DM-EBS) [MIM:131760]. DM-EBS is a severe form of intraepidermal epidermolysis bullosa characterized by generalized herpetiform blistering, milia formation, dystrophic nails, and mucous membrane involvement.
Defects in KRT5 are the cause of epidermolysis bullosa simplex with migratory circinate erythema (EBSMCE) [MIM:609352]. EBSMCE is a form of intraepidermal epidermolysis bullosa characterized by unusual migratory circinate erythema. Skin lesions appear from birth primarily on the hands, feet, and legs but spare nails, ocular epithelia and mucosae. Lesions heal with brown pigmentation but no scarring. Electron microscopy findings are distinct from those seen in the DM-EBS, with no evidence of tonofilament clumping.
Defects in KRT5 are a cause of epidermolysis bullosa simplex Weber-Cockayne type (WC-EBS) [MIM:131800]. WC-EBS is a form of intraepidermal epidermolysis bullosa characterized by blistering limited to palmar and plantar areas of the skin.
Defects in KRT5 are a cause of epidermolysis bullosa simplex Koebner type (K-EBS) [MIM:131900]. K-EBS is a form of intraepidermal epidermolysis bullosa characterized by generalized skin blistering. The phenotype is not fundamentally distinct from the Dowling-Meara type, althought it is less severe.
Defects in KRT5 are the cause of epidermolysis bullosa simplex with mottled pigmentation (MP-EBS) [MIM:131960]. MP-EBS is a form of intraepidermal epidermolysis bullosa characterized by blistering at acral sites and 'mottled' pigmentation of the trunk and proximal extremities with hyper- and hypopigmentation macules.
Defects in KRT5 are the cause of Dowling-Degos disease (DDD) [MIM:179850]; also known as Dowling-Degos-Kitamura disease or reticulate acropigmentation of Kitamura. DDD is an autosomal dominant genodermatosis. Affected individuals develop a postpubertal reticulate hyperpigmentation that is progressive and disfiguring, and small hyperkeratotic dark brown papules that affect mainly the flexures and great skin folds. Patients usually show no abnormalities of the hair or nails.

Sequence similarities

Belongs to the intermediate filament family.

Images



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

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

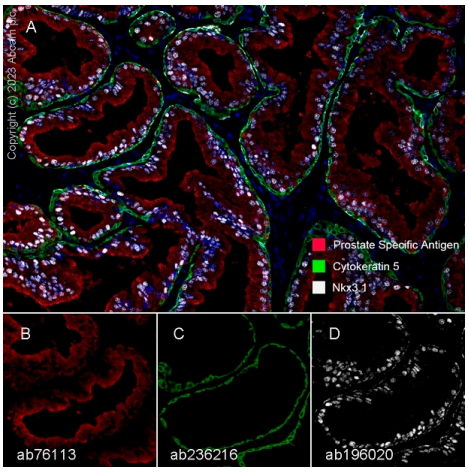
Flow cytometry overlay histogram showing left A-431 positive cells and right negative MCF7 stained with **ab64081** (red line). The cells were fixed with 80% methanol (5 min) and then permeabilised with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (**ab64081**) (1x 10^6 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

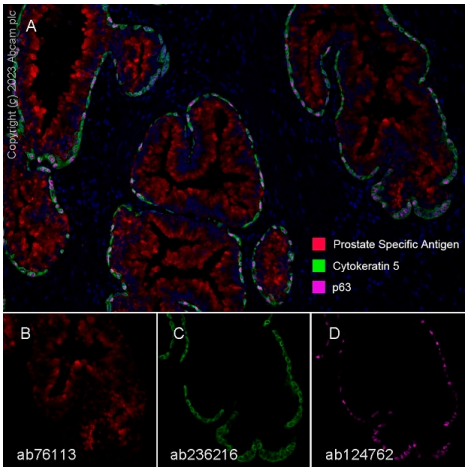
concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

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



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

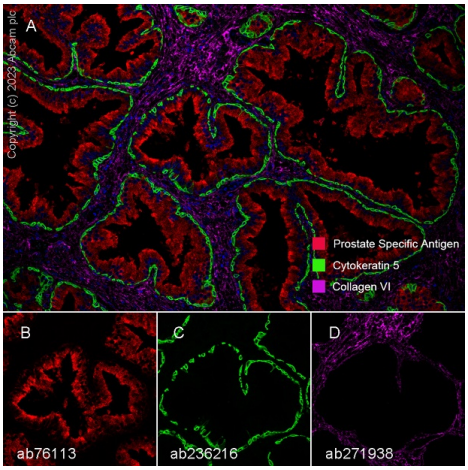
Fluorescence multiplex immunohistochemical analysis of human prostate gland tissue (formalin/PFA-fixed paraffin-embedded section). Panel A: merged staining of anti-Prostate Specific Antigen (**ab76113**, red; Opal™690), anti-Cytokeratin 5 (ab236216, green; Opal™520) and anti-Nkx3.1 (**ab196020**, gray; 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.
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)

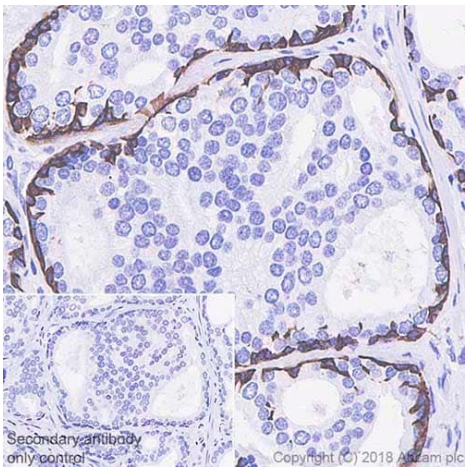
Fluorescence multiplex immunohistochemical analysis of human prostate gland tissue (formalin/PFA-fixed paraffin-embedded section). Panel A: merged staining of anti-p63 (**ab124762**, magenta; Opal™690), anti-Cytokeratin 5 (ab236216, green; Opal™520) and anti-Prostate Specific Antigen (**ab76113**, red; 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.



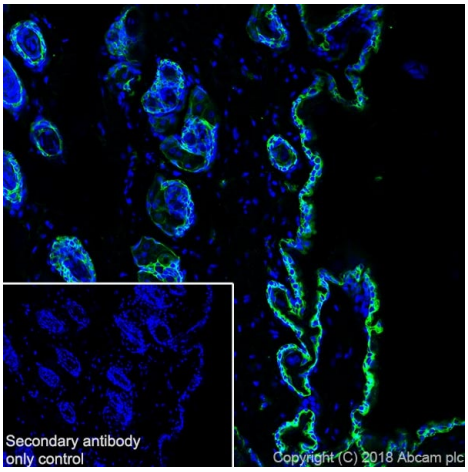
Multiplex immunohistochemistry - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

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.



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

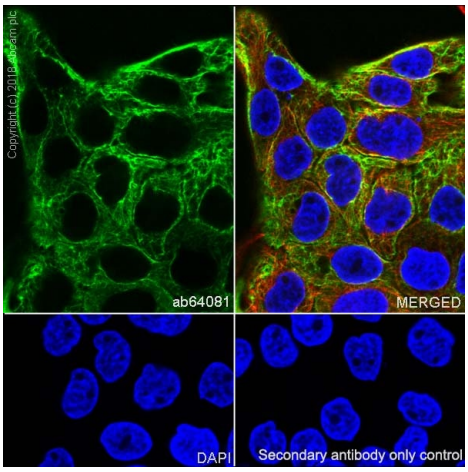
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human prostate cancer
tissue sections labeling Cytokeratin 5 with **ab64081** at 1/100 dilution (2.46 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. 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 (Frozen sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

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.

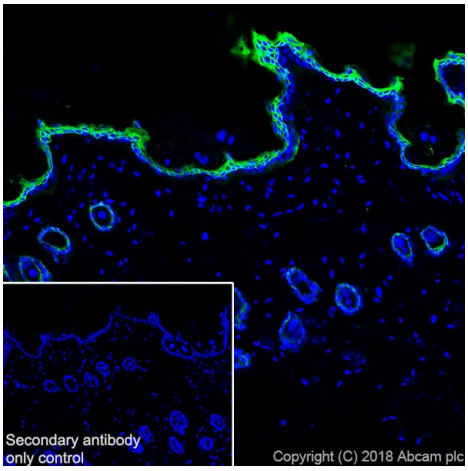
This image was generated using **ab64081**, the same clone, but with a different buffer formulation.



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

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.

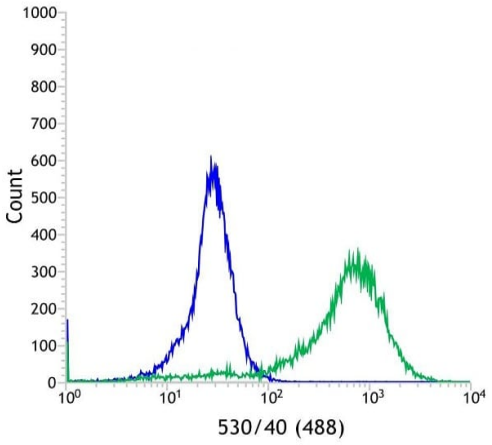
This image was generated using **ab64081**, the same clone, but with a different buffer formulation.



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

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.

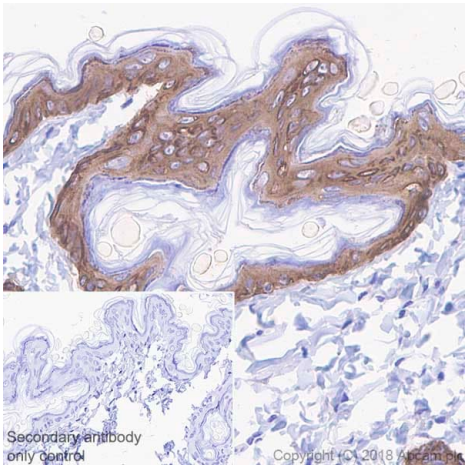
This image was generated using **ab64081**, the same clone, but with a different buffer formulation.



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

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.

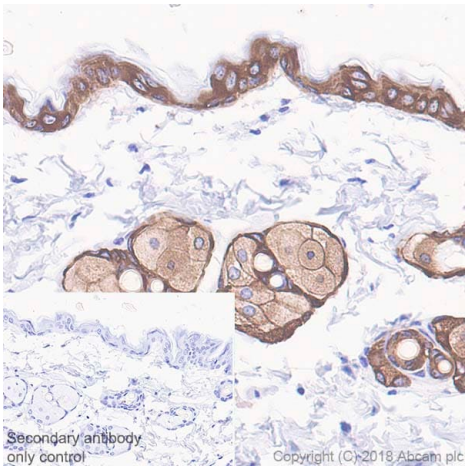


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [SP27] - BSA and Azide free (ab236216)

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.

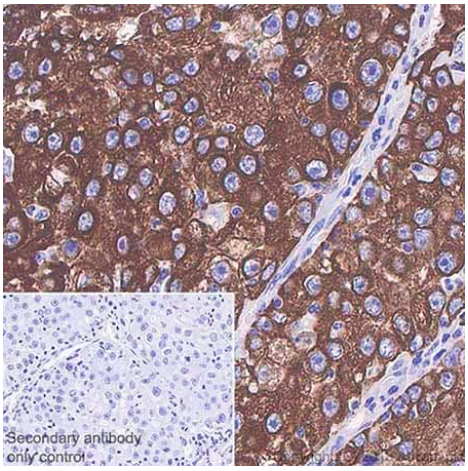
This image was generated using **ab64081**, the same clone, but with a different buffer formulation.



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

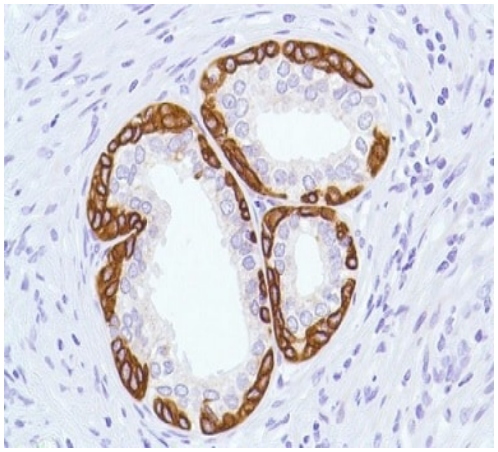
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Mouse skin tissue sections labeling Cytokeratin 5 with **ab64081** at 1/100 dilution (2.46 µg/ml). Heat mediated antigen retrieval with sodium citrate buffer (pH 6.0, epitope retrieval solution 1) for 10mins. Rabbit specific 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.



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

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)

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**).

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

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors