abcam

ab232566

Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free

Recombinant | RabMAb | KO Validated

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	EPR1579Y
Purification technique	Affinity purification Protein A
Specificity	In our WB testing this antibody did not recognize mouse Cytokeratin 19, but customers have reported the antibody recognizes the protein in IHC-P with mouse tissue. Thus, we have removed mouse as a "does not react with" species and welcome further feedback from other researchers using this antibody in mouse.
Concentration	0.99 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	-
Notes	-

WB

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information KRT19

Function	Involved in the organization of myofibers. Together with KRT8, helps to link the contractile apparatus to dystrophin at the costameres of striated muscle.

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

ab232566 is the carrier-free version of ab76539.

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.

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.

Supplementary info

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

Activity summary	Cytokeratin 19 (CK19) also known as cytokeratine 19 keratin 19 (KRT19) or CK19 is a type of intermediate filament found in epithelial cells. It serves as an essential component of the cytoskeleton. CK19 weighs approximately 40 kDa and is broadly expressed in simple epithelial tissues including liver intestine and various glandular epithelial cells. As a cytokeratin marker it often appears in combination with others like cytokeratin 17 in certain tissue types helping to maintain the structural integrity of cells.
Biological function summary	CK19 plays a role in maintaining the cytoskeletal framework that provides mechanical support and helps control cell size and shape. It is not part of a large protein complex but works closely with other cytokeratins to ensure the stability and resilience of epithelial tissues. The A53-B/A22.26 positive staining is often used to confirm its presence in clinical histopathology.
Pathways	CK19 connects to cellular processes especially involving the keratinization and epithelial cell differentiation pathways. It interacts with other cytokeratins including BA16 and KR17 to facilitate these processes. This interaction aids in modulating the dynamics of cytoskeletal rearrangement during cell movement division and differentiation.
Associated diseases and disorders	CK19 overexpression is linked with certain cancers notably hepatocellular carcinoma and breast cancer. It can serve as a prognostic marker in these diseases often in conjunction with other markers like CK17. The involvement of CK19 in the epithelial-mesenchymal transition (EMT) process connects it to the progression and aggressiveness of tumors facilitated by interactions with proteins involved in EMT pathways.

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

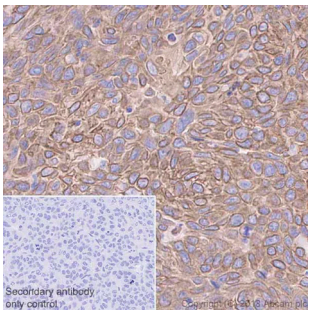
We do not recommend this combination. It is not covered by our product promise.

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.

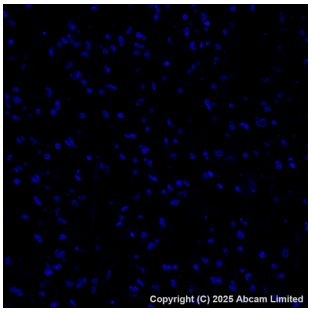
13 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung cancer tissue sections labeling Cytokeratin 19 with Purified ab76539 at 1:1000 dilution (0.12 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin.
ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76539).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human glioma tissue using rabbit Anti-Cytokeratin 19 antibody

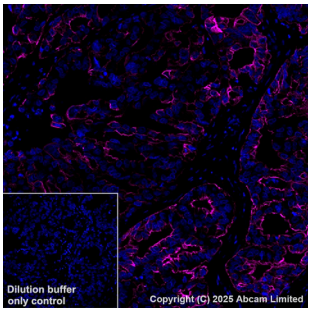
This data was developed using ab205446, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human glioma tissue labeling Cytokeratin 19 with ab205446 at 1/100 (5.0 µg/ml) dilution.

Negative control: no staining on human glioma.

The primary antibody was incubated for 60 mins at room temperature (shown in magenta). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human gastric cancer tissue using rabbit Anti-Cytokeratin 19 antibody

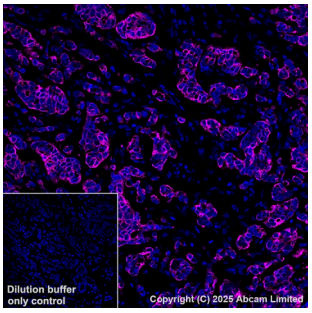
This data was developed using ab205446, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human gastric cancer tissue labeling Cytokeratin 19 with ab205446 at 1/100 (5.0 µg/ml) dilution.

Membrane staining on human gastric cancer.

The primary antibody was incubated for 60 mins at room temperature (shown in magenta). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human breast cancer tissue using rabbit Anti-Cytokeratin 19 antibody

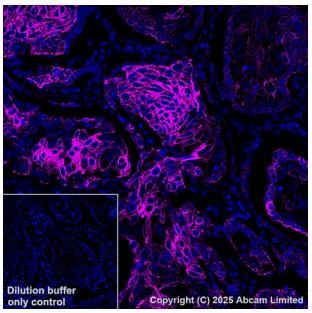
This data was developed using ab205446, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human breast cancer tissue labeling Cytokeratin 19 with ab205446 at 1/100 (5.0 µg/ml) dilution.

Membrane staining on human breast cancer.

The primary antibody was incubated for 60 mins at room temperature (shown in magenta). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human lung cancer tissue using rabbit Anti-Cytokeratin 19 antibody

This data was developed using ab205446, the same antibody clone in a different buffer formulation.

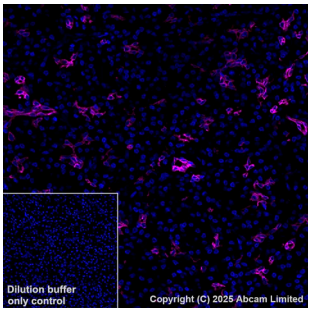
Immunohistochemical analysis of paraffin-embedded Human lung cancer tissue labeling Cytokeratin 19 with ab205446 at 1/100 (5.0 µg/ml) dilution.

Membrane staining on human lung cancer.

The primary antibody was incubated for 60 mins at room temperature (shown in magenta). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human pancreas tissue using rabbit Anti-Cytokeratin 19 antibody

This data was developed using ab205446, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human pancreas tissue labeling Cytokeratin 19 with ab205446 at 1/100 (5.0 µg/ml) dilution.

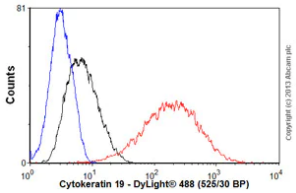
Membrane staining on human pancreas.

The primary antibody was incubated for 60 mins at room temperature (shown in magenta). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument.

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 40 mins.

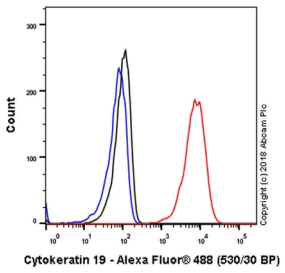
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 19 antibody

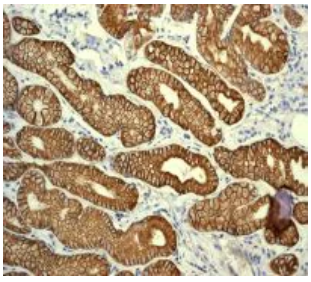
Overlay histogram showing MCF7 cells stained with unpurified ab76539 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab76539, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line). Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76539).



Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 19 antibody

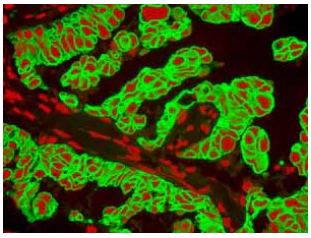
Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling Cytokeratin 19 with purified ab76539 at 1/20 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. 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 (ab76539).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 19 antibody

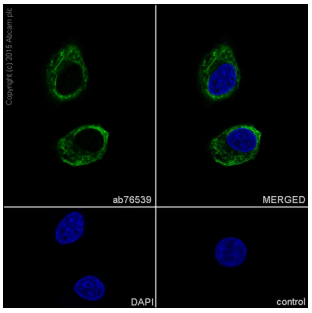
Immunohistochemical staining of human stomach adenocarcinoma tissue with ab76539 (unpurified) at1/100-1/250.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76539).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 19 antibody

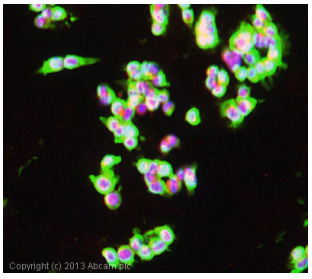
Fluorescent immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using ab76539 (unpurified). Green- CK19 red-PI.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76539).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 19 antibody

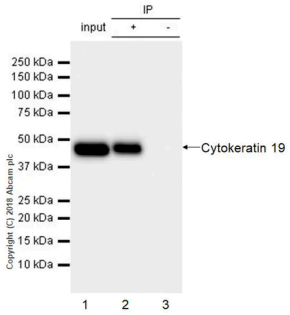
Immunofluorescence staining of MCF-7 cells with purified ab76539 at a working dilution of 1/500, counter-stained with DAPI. The secondary antibody was an Alexa Fluor® 488 conjugated goat anti-rabbit (ab150077), used at a dilution of 1/1000. The cells were fixed in 100% methanol. The negative control is shown in bottom right hand panel - for the negative control, PBS was used instead of the primary antibody.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76539).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

Cytokeratin 19 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 19 antibody

ab76539 (unpurified) stained HCT116 cells. The cells were 4% formaldehyde fixed for 10 minutes at room temperature and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1 hour at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab76539 at 1/200 dilution) overnight at +4°C. The secondary antibody (pseudo-colored green) was Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed (ab150081) used at a 1/1000 dilution for 1hour at room temperature. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1 hour at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43 µM for 1hour at room temperature.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab76539).



Immunoprecipitation - Anti-Cytokeratin 19 antibody [EPR1579Y] - BSA and Azide free (ab232566)

ab76539 (purified) at 1:20 dilution (2ug) immunoprecipitating Cytokeratin 19 in SKBR-3 whole cell lysate.
Lane 1 (input): SK-BR-3 (Human breast adenocarcinoma epithelial cell) whole cell lysate 10 µg
Lane 2 (+): ab76539 & SKBR-3 whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab76539 in SKBR-3 whole cell lysate
For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1:1000 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 (ab76539).

All lanes:
Immunoprecipitation - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

Predicted band size: 44 kDa

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