abcam

ab76539

Anti-Cytokeratin 19 antibody [EPR1579Y]

Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539) is a rabbit monoclonal antibody detecting Cytokeratin 19 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 10 publications
- Trusted since 2009

Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
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	0.115 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	**For unpurified use at 1/100 - 1/250.** Perform heat-mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol.

IP

Tested

Species	Human
Dilution info	1/20
Notes	-

WB

Tested

Species	Human
Dilution info	1/10000 - 1/50000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	Signal can be observed in cells fixed with either methanol or paraformaldehyde.

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	1/20
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

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	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of Cytokeratin 19?
Anti-Cytokeratin 19 [EPR1579Y] (ab76539) specifically detects a band for Cytokeratin 19 (UniProt: P08727) at a molecular weight of 44kDa.

Trusted by the scientific community
Anti-Cytokeratin 19 [EPR1579Y] (ab76539) was first used in a scientific publication in 2009 and has been cited over 10 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539) has been confirmed by Immunocytochemistry

testing in Cytokeratin 19 Knockout MCF7 cells.

Other related products
We have a range of other formats of antibody clone [EPR1579Y] also available for your convenience: ab76539, Alexa Fluor® 488 - ab205445, Alexa Fluor® 647 - ab205446, PE - ab216705, APC - ab221255, PerCP - ab221256, Carrier free - ab232566

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.

Species reactivity
Rat: We have preliminary internal testing data to indicate this antibody may not react with this species.
Please contact us for more information.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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

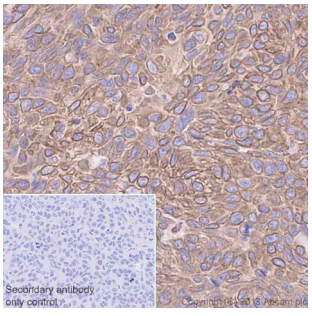
We do not recommend this combination. It is not covered by our product promise.

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.

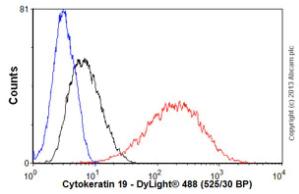
Full details and terms and conditions can be found here:
Terms & Conditions.

9 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

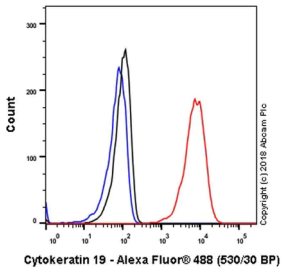
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human lung cancer tissue sections labeling Cytokeratin 19 with Purified ab76539 at 1:1000 dilution (0.12 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained 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.



Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

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

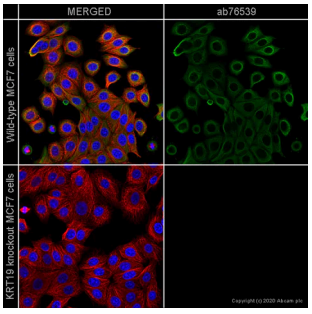
Overlay histogram showing MCF7 cells stained with unpurified ab76539 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein 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.



Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

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

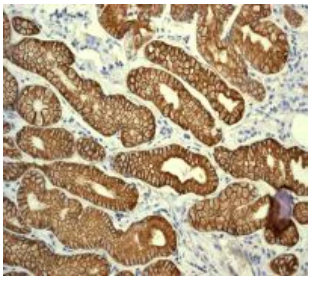
Intracellular Flow Cytometry analysis of MCF7 (Human breast adenocarcinoma epithelial cell) cells labeling Cytokeratin 19 with purified ab76539 at 1/20 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1/2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunocytochemistry - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

Cytokeratin 19 Immunocytochemistry staining using rabbit Anti-Cytokeratin 19 antibody

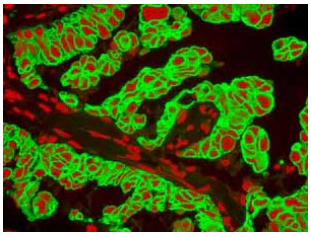
ab76539 staining Cytokeratin 19 in wild-type MCF7 cells (top panel) and KRT19 knockout MCF7 cells (bottom panel). The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab76539 at 1/500 dilution and ab7291 (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution 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 (shown in red). Nuclear DNA was labelled in blue with DAPI. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

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.
Heat mediated antigen retrieval was performed via the pressure cooker method before commencing with IHC staining protocol.

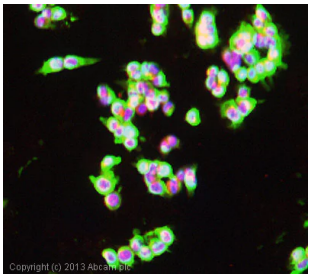


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

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.

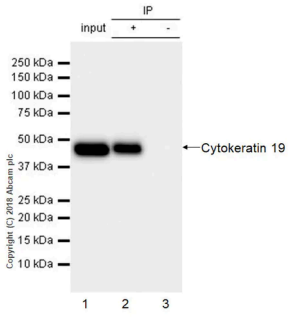
Heat mediated antigen retrieval was performed via the pressure cooker method before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

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

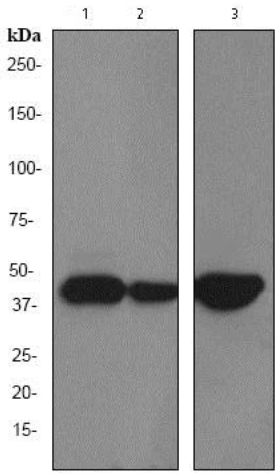
ab76539 (unpurified) stained HCT116 cells. The cells were 4% formaldehyde fixed for 10 minutes at room temperature and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1 hour at room temperature to permeabilise the cells and block non-specific protein-protein interactions. 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.



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

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

Predicted band size: 44 kDa



Western blot - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539)

All lanes:
Western blot - Anti-Cytokeratin 19 antibody [EPR1579Y] (ab76539) at 1/10000 dilution

Lane 1:
T47D cell lysate at 10 µg

Lane 2:
HepG2 cell lysate at 10 µg

Lane 3:
SKBR-3 cell lysate at 10 µg

Secondary

All lanes:
HRP-labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 44 kDa

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