


Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker ab76126

Recombinant RabMAb

★★★★★ [17 Abreviews](#) [46 References](#) [14 Images](#)

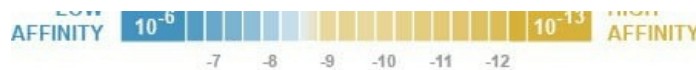
Overview

Product name	Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker
Description	Rabbit monoclonal [EPR1622Y] to Cytokeratin 20 - Cytoskeleton Marker
Host species	Rabbit
Specificity	The immunogen of this antibody is 73% homolog with Mouse-Cytokeratin 20. This antibody gives positive results for mouse samples in Western Blot only. Therefore we do not recommend this antibody for mouse samples and do not cover mouse with our Abpromise guarantee.
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, WB, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Rat, Goat, Pig, Common marmoset 
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HT-29, DLD-1 and Human small intestine cell lysates. IHC-P: Human colon adenocarcinoma and urinary bladder transitional carcinoma tissue. ICC: HT-29 cells. Flow Cyt (intra): LoVo cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"> - 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 .

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Dissociation constant (K_D)	K _D = 3.10 x 10 ⁻¹¹ M





[Learn more about K_D](#)

Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR1622Y
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab76126 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
Flow Cyt (Intra)		1/1000. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (3)	1/100 - 1/500.
WB		1/10000 - 1/50000. Predicted molecular weight: 48 kDa.
IHC-P	★★★★★ (12)	1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Target

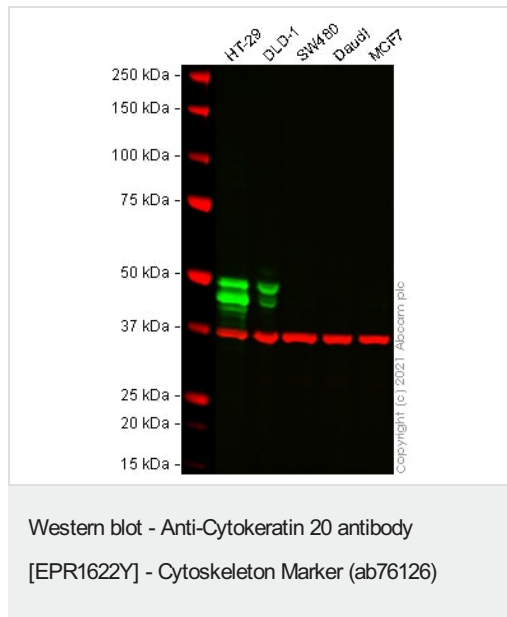
Function	Plays a significant role in maintaining keratin filament organization in intestinal epithelia. When phosphorylated, plays a role in the secretion of mucin in the small intestine.
Tissue specificity	Expressed predominantly in the intestinal epithelium. Expressed in luminal cells of colonic mucosa. Also expressed in the Merkel cells of keratinized oral mucosa; specifically at the tips of some rete ridges of the gingival mucosa, in the basal layer of the palatal mucosa and in the taste buds of lingual mucosa.
Sequence similarities	Belongs to the intermediate filament family.
Developmental stage	First detected at embryonic week 8 in individual 'converted' simple epithelial cells of the developing intestinal mucosa. In later fetal stages, synthesis extends over most goblet cells and a variable number of villus enterocytes. In the developing gastric and intestinal mucosa, expressed in all enterocytes and goblet cells as well as certain 'low-differentiated' columnar cells, whereas the neuroendocrine and Paneth cells are negative.
Post-translational modifications	Hyperphosphorylation at Ser-13 occurs during the early stages of apoptosis but becomes less prominent during the later stages. Phosphorylation at Ser-13 also increases in response to stress brought on by cell injury.

Proteolytically cleaved by caspases during apoptosis. Cleavage occurs at Asp-228.

Cellular localization

Cytoplasm.

Images



All lanes : Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126) at 1/10000 dilution

Lane 1 : HT-29 cell lysate

Lane 2 : DLD-1 cell lysate

Lane 3 : SW480 cell lysate

Lane 4 : Daudi cell lysate

Lane 5 : MCF7 cell lysate

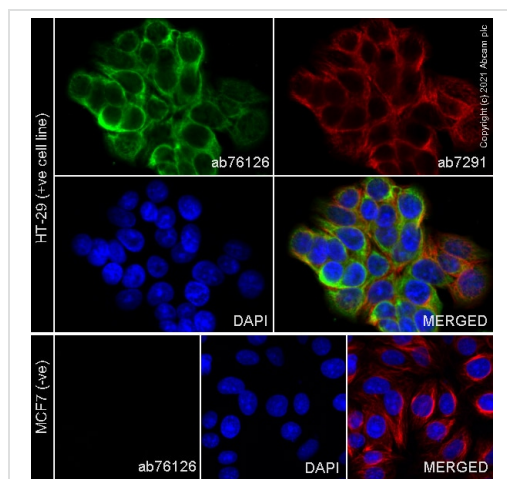
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 48 kDa

Additional bands at: 45 kDa. We are unsure as to the identity of these extra bands.

False colour image of Western blot: Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker staining at 1/10000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] ([ab8245](#)) loading control staining at 1/20000 dilution, shown in red. In Western blot, ab76126 was shown to bind specifically to Cytokeratin 20. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3 % milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ([ab216776](#)) at 1/20000 dilution.

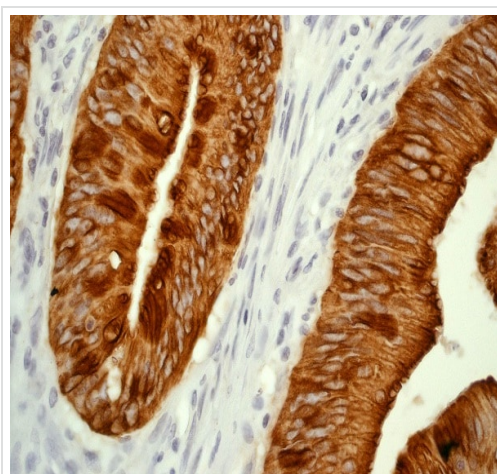


Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

ab76126 staining Cytokeratin 20 in HT-29 cells, with negative expression in MCF7 cells. The cells were fixed with 100% methanol (5 min), permeabilised 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 overnight at +4°C with ab76126 at 0.1 µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin at 0.5 µg/ml. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150119**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 647), pre-adsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a confocal microscope (Leica-Microsystems TCS SP8) and a single confocal section is shown.

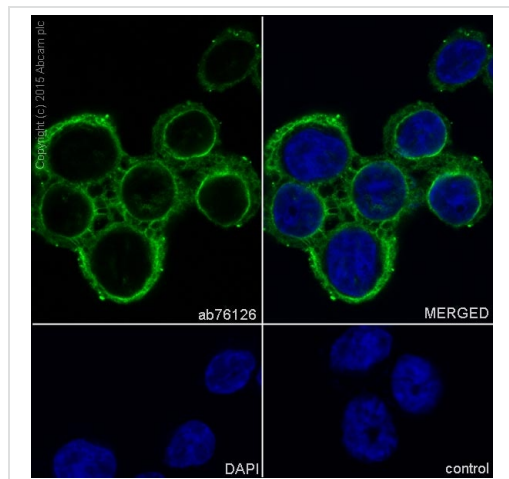
This product also work with 4% formaldehyde (10 min) fixation under the same testing conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

ab76126 at 1/100 dilution staining Cytokeratin 20 in human colon adenocarcinoma by Immunohistochemistry, Paraffin-embedded tissue.

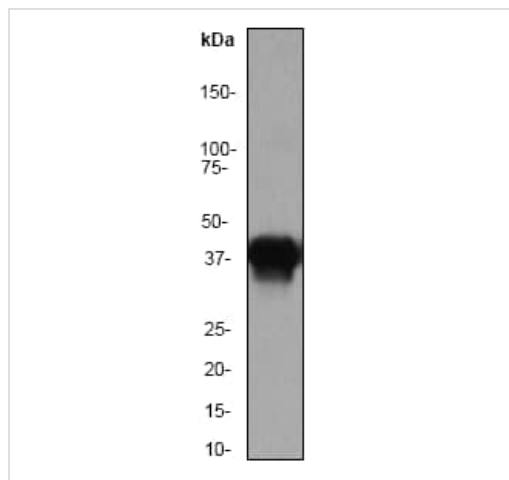
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 20 antibody [EPR1622Y] (ab76126)

Immunocytochemistry/Immunofluorescence analysis of HT-29 (human colorectal adenocarcinoma) cells labelling Cytokeratin 20 with purified ab76126 at 1/500. Cells were fixed with 100% methanol. **ab150077**, Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Nuclei were counterstained with DAPI (blue).

Secondary Only Control: PBS was used instead of the primary antibody as the negative control.



Western blot - Anti-Cytokeratin 20 antibody [EPR1622Y] (ab76126)

Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126) at 1/50000 dilution + human small intestine lysate at 10 µg

Secondary

goat anti-rabbit-HRP at 1/1000 dilution

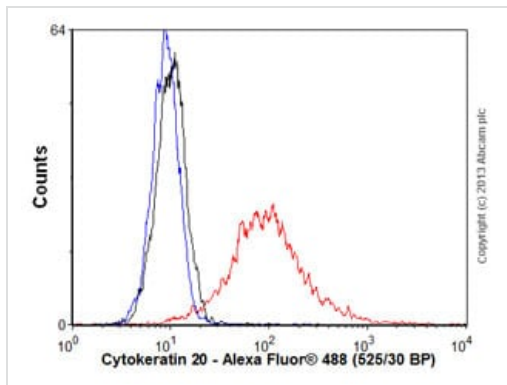
Predicted band size: 48 kDa

Observed band size: 44 kDa

Primary: ab76126, 1/50000 dilution

Sample: human small intestine lysate, 10 µg

Secondary: goat anti-rabbit-HRP, 1/1000 dilution



Flow Cytometry (Intracellular) - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

Overlay histogram showing LoVo (Human colorectal adenocarcinoma cell line) cells stained with ab76126 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 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 (ab76126, 1/1000 dilution) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-rabbit IgG (H&L) ([ab150077](#)) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1 µg/1x10⁶ 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.



Western blot - Anti-Cytokeratin 20 antibody [EPR1622Y] (ab76126)

Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126) at 1/50000 dilution + Recombinant Human Cytokeratin 20 protein ([ab73640](#)) at 0.01 µg

Secondary

Goat Anti-Rabbit IgG H&L (HRP) preadsorbed ([ab97080](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

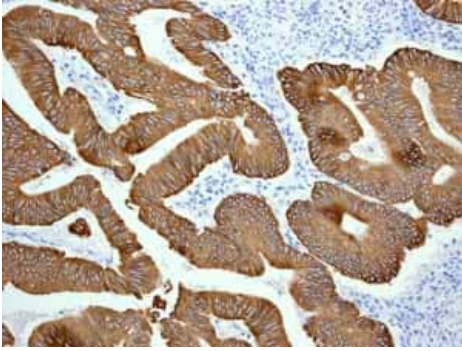
Predicted band size: 48 kDa

Exposure time: 20 seconds

Primary: ab76126, 1/50000 dilution

Sample: [ab73640](#), 0.01 µg

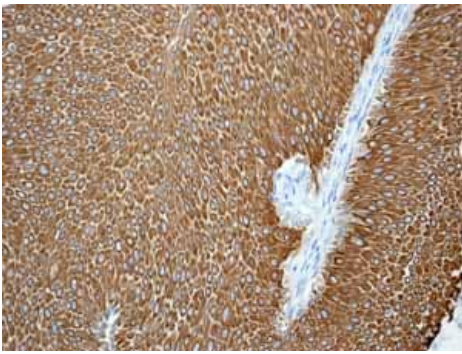
Secondary: **ab97080**, 1/5000 dilution



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

ab76126 showing positive staining in human colonic adenocarcinoma tissue.

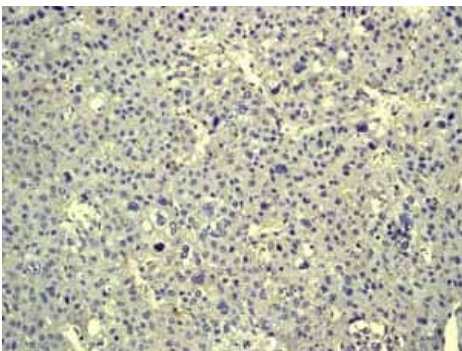
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

ab76126 showing positive staining in human urinary bladder transitional carcinoma tissue.

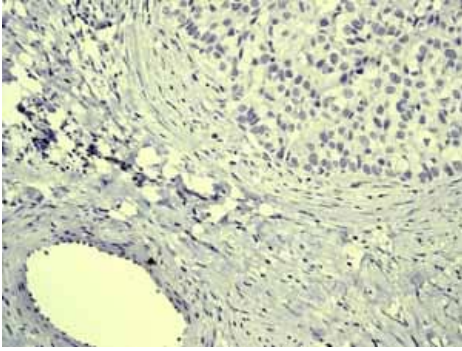
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

ab76126 showing **negative staining** in human hepatocellular carcinoma tissue.

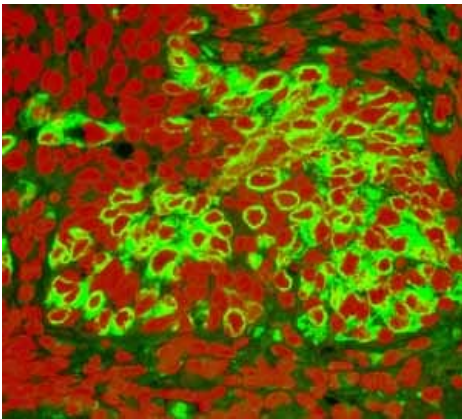
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

ab76126 showing **negative staining** in human breast carcinoma tissue.

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

Fluorescent immunohistochemical analysis of paraffin-embedded human colonic adenocarcinoma tissue using ab76126. Green-CK20 red-PI

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

OL-RD Scanning - Anti-Cytokeratin 20 antibody [EPR1622Y] - Cytoskeleton Marker (ab76126)

Equilibrium disassociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Cytokeratin 20 antibody [EPR1622Y] -
Cytoskeleton Marker (ab76126)

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