

## Product datasheet

# Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker ab52625

**KO VALIDATED** Recombinant RabMAB

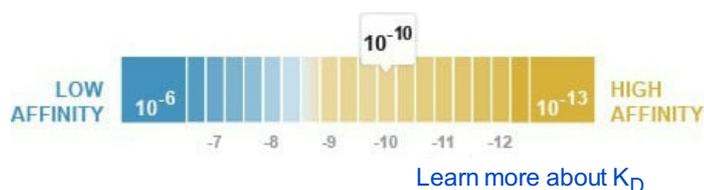
★★★★★ 12 Abreviews 144 References 14 Images

### Overview

<b>Product name</b>	Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker
<b>Description</b>	Rabbit monoclonal [EP1580Y] to Cytokeratin 19 - Cytoskeleton Marker
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), ICC/IF, WB, IHC-P <b>Unsuitable for:</b> IP
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Human
<b>Immunogen</b>	Synthetic peptide within Human Cytokeratin 19 aa 350 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: <a href="#">P08727</a>
<b>Positive control</b>	WB: HepG2 and NIH/3T3 cell lysates. IHC-P: Human skin, breast carcinoma, kidney carcinoma, endometrial carcinoma and gastric adenocarcinoma tissues. ICC/IF: HepG2 and MCF-7 cells (MCF7-KRT19 KO used as a negative cell line). Flow Cyt (intra): MCF-7 and HeLa cells. IHC-Fr: Mouse salivary gland tissue.
<b>General notes</b>	<p>Abcam recommended secondaries - Goat Anti-Rabbit HRP (<a href="#">ab205718</a>) and Goat Anti-Rabbit Alexa Fluor® 488 (<a href="#">ab150077</a>).</p> <p>See other <a href="#">anti-rabbit secondary antibodies</a> that can be used with this antibody.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB® patents</a>.</p> <p><b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b></p>

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Dissociation constant (K<sub>D</sub>)</b>	K <sub>D</sub> = 3.70 x 10 <sup>-10</sup> M



<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP1580Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab52625 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)		1/30 - 1/80. <a href="#">ab172730</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF	★★★★★ (3)	1/200 - 1/500. <b>For unpurified, use 1/50. Signal can be observed in cells fixed with either methanol or paraformaldehyde.</b>
WB	★★★★★ (1)	1/50000 - 1/200000. Detects a band of approximately 44 kDa (predicted molecular weight: 44 kDa). <b>For unpurified, use 1/10000 - 1/50000.</b>
IHC-P	★★★★★ (5)	1/400 - 1/800. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See <a href="#">IHC antigen retrieval protocol</a> . <b>For unpurified, use at 1/100.</b>

**Application notes** Is unsuitable for IP.

## Target

**Function**

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

**Tissue specificity**

Expressed in a defined zone of basal keratinocytes in the deep outer root sheath of hair follicles. Also observed in sweat gland and mammary gland ductal and secretory cells, bile ducts, gastrointestinal tract, bladder urothelium, oral epithelia, esophagus, ectocervical epithelium (at protein level). Expressed in epidermal basal cells, in nipple epidermis and a defined region of the hair follicle. Also seen in a subset of vascular wall cells in both the veins and artery of human umbilical cord, and in umbilical cord vascular smooth muscle. Observed in muscle fibers accumulating in the costameres of myoplasm at the sarcolemma in structures that contain dystrophin and spectrin.

**Sequence similarities**

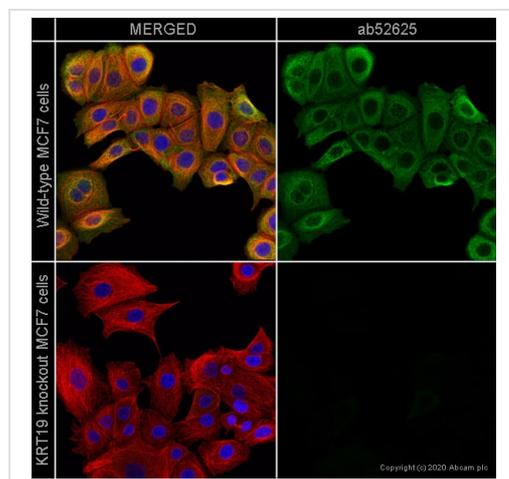
Belongs to the intermediate filament family.

**Developmental stage**

Present in hair follicles at all stages of development.

**Domain**

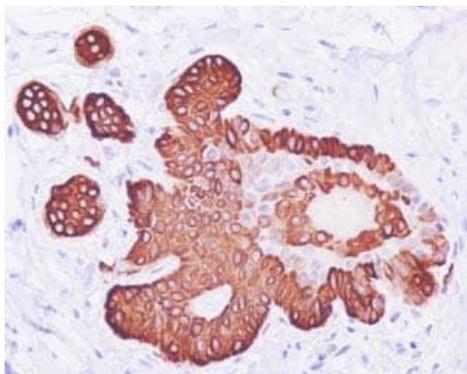
This keratin differs from all other IF proteins in lacking the C-terminal tail domain.

**Images**

Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

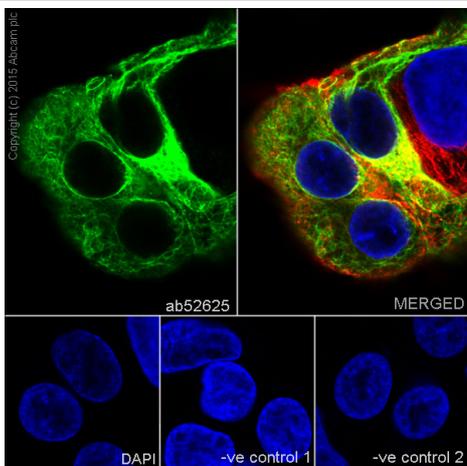
ab52625 staining Cytokeratin 19 in wild-type MCF7 cells (top panel) and KRT19 knockout MCF7 cells (bottom panel). The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab52625 at 1/100 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 [EP1580Y] - Cytoskeleton Marker (ab52625)

Immunohistochemical staining of paraffin-embedded human skin with purified ab52625 at a dilution of 1/400. A pre-diluted HRP polymer for rabbit/mouse IgG was used as the secondary antibody and the sample was counter-stained with hematoxylin. Antigen retrieval was performed using Tris-EDTA buffer, pH 9.0. PBS was used instead of the primary antibody as the negative control, and is shown in the inset.

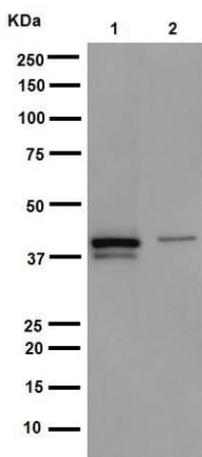


Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

Immunocytochemistry/Immunofluorescence analysis of HepG2 (human liver hepatocellular carcinoma cell line) cells labelling Cytokeratin 19 (green) with purified ab52625 at 1/500. Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, Alexa Fluor<sup>®</sup> 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. Cells were counter-stained with ab7291, anti-Tubulin (mouse mAb) at 1/1000 followed by ab150120 Alexa Fluor<sup>®</sup> 594 goat anti-mouse secondary (1/1000). Nuclei were counterstained with DAPI (blue).

For negative control 1, rabbit primary antibody and anti-mouse secondary antibody (ab150120) were used. For negative control 2, ab7291 (mouse primary antibody) was used followed by anti-rabbit secondary antibody (ab150077).

Alexa Fluor<sup>®</sup> 488 (ab192643) and Alexa Fluor<sup>®</sup> 647 (ab192980) conjugated versions are available for this clone.



Western blot - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

**All lanes :** Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625) at 1/45000 dilution (purified)

**Lane 1 :** HepG2 (liver hepatocellular carcinoma cell line) cell lysate

**Lane 2 :** NIH/3T3 (mouse embryo fibroblast cell line) cell lysate

Lysates/proteins at 20 µg per lane.

**Secondary**

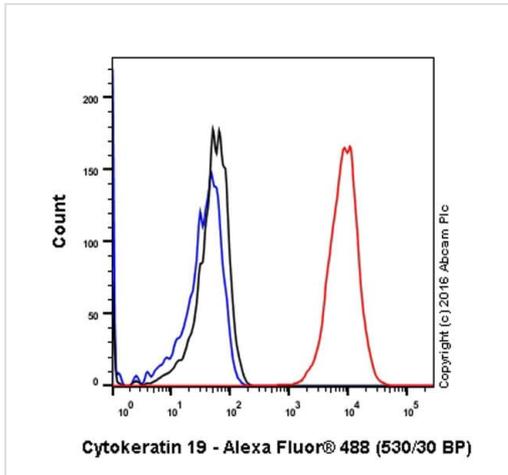
**All lanes :** HRP goat anti-rabbit (H+L) at 1/1000 dilution

**Predicted band size:** 44 kDa

**Observed band size:** 40 kDa

Blocking buffer: 5% NFDm/TBST

Dilution buffer: 5% NFDm/TBST



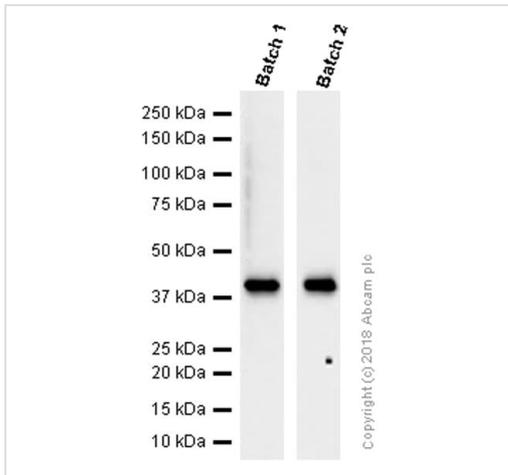
Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

ab52625 staining Cytokeratin 19 in the human cell line MCF-7 (human breast carcinoma) by intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde, permeabilized with 90% methanol and the sample was incubated with the primary antibody at a dilution of 1/80. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/2000 was used as the secondary antibody.

Isotype control: Rabbit monoclonal IgG (Black)

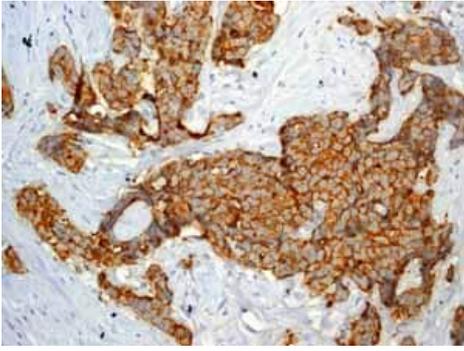
Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue).

Alexa Fluor® 488 (ab192643) and Alexa Fluor® 647 (ab192980) conjugated versions are available for this clone.



Western blot - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

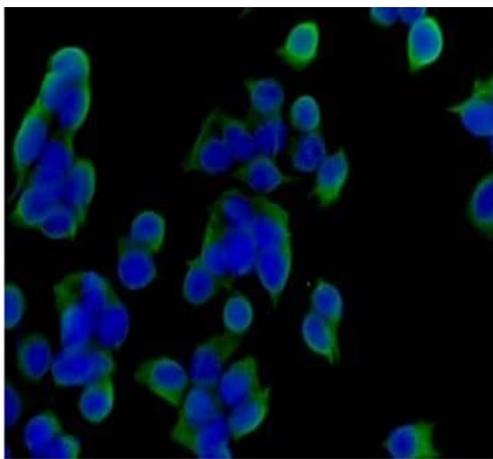
Different batches of ab52625 were tested on HepG2 (Human hepatocellular carcinoma epithelial cell) lysate at 0.2 µg/ml. 15 µg of lysate was loaded in each lane. Bands observed at 40 kDa.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

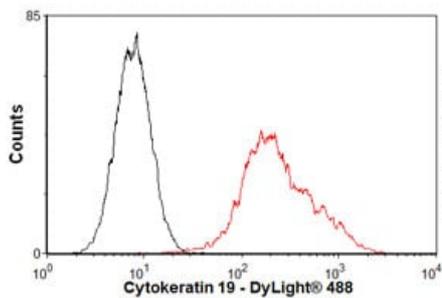
Unpurified ab52625 showing positive staining in Breast carcinoma tissue.

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



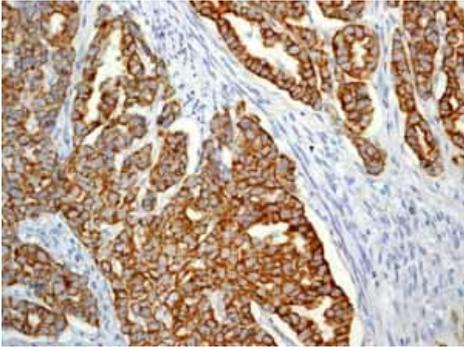
Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

Immunofluorescent staining of MCF-7 cells (fixed in 4% PFA, permeabilized with 0.1% Triton X 100) using purified ab52625 at a dilution of 1/200. An Alexa Fluor<sup>®</sup> 488 goat anti-rabbit antibody was used as the secondary at a dilution of 1/200 and the cells were counter stained with DAPI.



Flow Cytometry (Intracellular) - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

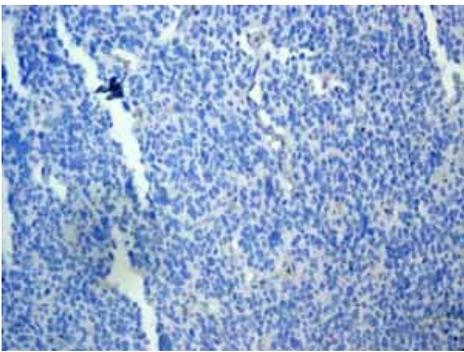
Overlay histogram showing HeLa (human epithelial cell line from cervix adenocarcinoma) cells stained with unpurified ab52625 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab52625, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight<sup>®</sup> 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<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

Unpurified ab52625 showing positive staining in Endometrial carcinoma tissue.

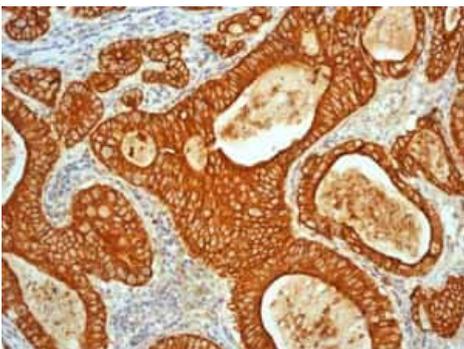
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

Unpurified ab52625 showing negative staining in Glioma tissue.

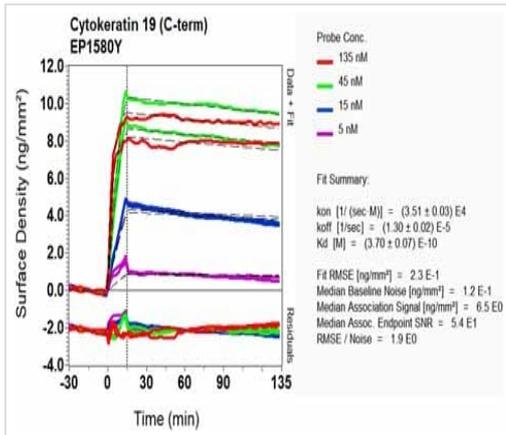
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [EP1580Y] - Cytoskeleton Marker (ab52625)

Unpurified ab52625 showing positive staining in Gastric adenocarcinoma tissue.

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



SPR Scanning - Anti-Cytokeratin 19 antibody  
[EP1580Y] - Cytoskeleton Marker (ab52625)

Equilibrium dissociation constant ( $K_D$ )

Learn more about  $K_D$

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

Why choose a recombinant antibody?

 <p><b>Research with confidence</b> Consistent and reproducible results</p>	 <p><b>Long-term and scalable supply</b> Recombinant technology</p>
 <p><b>Success from the first experiment</b> Confirmed specificity</p>	 <p><b>Ethical standards compliant</b> Animal-free production</p>

Anti-Cytokeratin 19 antibody [EP1580Y] -  
Cytoskeleton Marker (ab52625)

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

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