abcam

ab192980

Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y]

Anti-Cytokeratin 19 antibody [EP1580Y] - Alexa Fluor® 647 conjugated (ab192980) is a rabbit recombinant monoclonal antibody detecting Cytokeratin 19 in **Flow Cytometry (Intra), ICC/IF**. Suitable for **Human**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 647
Excitation/Emission	Ex: 650nm, Em: 665nm
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1580Y
Purification technique	Affinity purification Protein A
Dissociation constant	3.7×10^{-10} M
Concentration	0.5 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	Signal can be observed in cells fixed with either methanol or paraformaldehyde.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Human
Dilution info	1/100
Notes	-

Species	Mouse
Dilution info	-
Notes	-

Species	Rat

Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	0.2 µL for 10^6 Cells
Notes	ab199093 - Rabbit monoclonal IgG (Alexa Fluor® 647), is suitable for use as an isotype control with this antibody.

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
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 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, Stable for 12 months at -20°C, Store in the dark

Notes

What is this antibody validated in?
Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980) is a rabbit recombinant monoclonal antibody and is validated for use in Flow Cytometry (Intra), Flow Cytometry (Flow Cyt), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

Related products
Antibody clone EP1580Y is also available pre-conjugated to a variety of labels for your convenience – Anti-Cytokeratin 19 Alexa Fluor® 647 [EP1580Y] (ab192980).

Specificity confirmed
The specificity of Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980) 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 [EP1580Y] also available for your convenience: ab52625, Alexa Fluor® 488 - ab192643, Alexa Fluor® 647 - ab192980, HRP - ab193600, Carrier free - ab195872, Alexa Fluor® 594 - ab203443, Alexa Fluor® 555 - ab203444, Alexa Fluor® 568 - ab203445, APC - ab224980, PE - ab224981, Carrier free - ab302465, ab323561, ab323562

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.

Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.

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

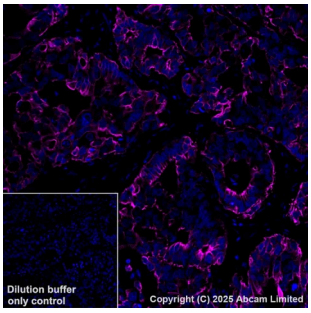
We do not recommend this combination. It is not covered by our product promise.

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.

8 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980)

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

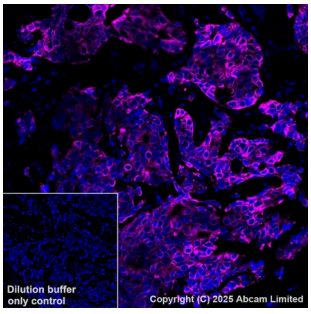
Immunohistochemical analysis of Paraffin-embedded Human gastric cancer tissue labelling Cytokeratin 19 with ab192980 at 1/100 dilution.

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.

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



Immunohistochemistry paraffin embedded sections - Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980)

Cytokeratin 19 Immunohistochemistry paraffin embedded sections staining of Human breast cancer tissue using rabbit Anti-Cytokeratin 19 antibody

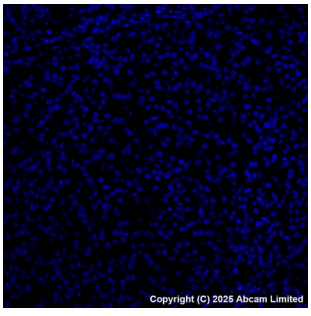
Immunohistochemical analysis of Paraffin-embedded Human breast cancer tissue labelling Cytokeratin 19 with ab192980 at 1/100 dilution.

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.

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



Immunohistochemistry paraffin embedded sections - Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980)

Cytokeratin 19 Immunohistochemistry paraffin embedded sections staining of Human glioma tissue using rabbit Anti-Cytokeratin 19 antibody

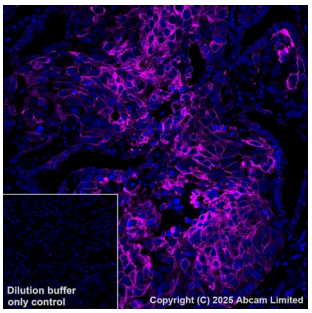
Immunohistochemical analysis of Paraffin-embedded Human glioma tissue labelling Cytokeratin 19 with ab192980 at 1/100 dilution.

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.

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



Immunohistochemistry paraffin embedded sections - Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980)

Cytokeratin 19 Immunohistochemistry paraffin embedded sections staining of Human lung cancer tissue using rabbit Anti-Cytokeratin 19 antibody

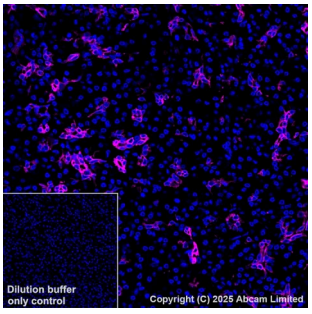
Immunohistochemical analysis of Paraffin-embedded Human lung cancer tissue labelling Cytokeratin 19 with ab192980 at 1/100 dilution.

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.

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



Immunohistochemistry paraffin embedded sections - Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980)

Cytokeratin 19 Immunohistochemistry paraffin embedded sections staining of Human pancreas tissue using rabbit Anti-Cytokeratin 19 antibody

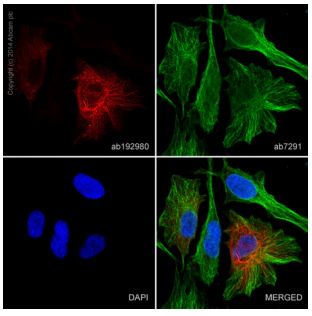
Immunohistochemical analysis of Paraffin-embedded Human pancreas tissue labelling Cytokeratin 19 with ab192980 at 1/100 dilution.

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.

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

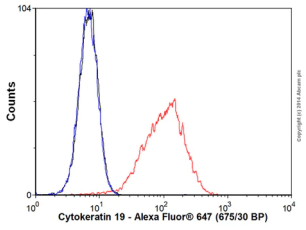


Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980)

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

ab192980 staining Cytokeratin 19 in HeLa cells. The cells were fixed with 100% methanol (5 min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Triton X-100 for 1hr. The cells were then incubated with ab192980 at a working dilution of 1 in 50 (shown in red) and ab7291 (Mouse monoclonal [DM1A] to alpha Tubulin) at 1µg/ml overnight at +4°C, followed by a further incubation at room temperature for 1hr with an AlexaFluor® 488 Goat anti-mouse IgG (H&L - preadsorbed) secondary (ab150117) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI.
This product gave a positive signal in 4% formaldehyde (10 min) fixed HeLa cells under the same testing conditions

Image was taken with a Confocal microscope (Leica micro-systems, TCS SP8).

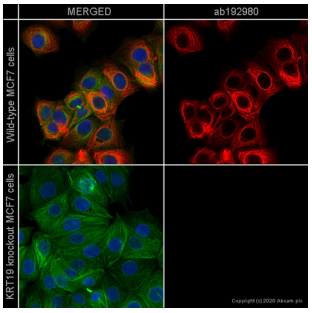


Flow Cytometry (Intracellular) - Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980)

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

Overlay histogram showing HeLa cells stained with ab192980 (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 (ab192980, 0.2µl/1x10^6 cells) for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (Alexa Fluor® 647) (0.1µg/1x10^6 cells) for 30 min at 22°C. Unlabelled sample (blue line) was also used as a control.
Acquisition of >5,000 events were collected using a 25mW red solid state diode laser (635nm) and 675/30 bandpass filter.

This antibody gave a positive signal in HeLa fixed with 4% formaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 647 Anti-Cytokeratin 19 antibody [EP1580Y] (ab192980)

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

ab192980 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 ab192980 at 1/100 dilution (shown in red) and ab195887 (Mouse monoclonal to alpha Tubulin - Alexa Fluor® 488) at 1/250 dilution (shown in green) overnight at +4°C. Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

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