abcam

ab255939

Anti-Cytokeratin 19 antibody [LP2K] - BSA and Azide free

Recombinant

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Carrier free	Yes
Clone number	LP2K
Purification technique	Affinity purification Protein A
Concentration	0.988 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
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

ab255939 is the carrier-free version of ab254186.
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.

Want a custom formulation?
This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com

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

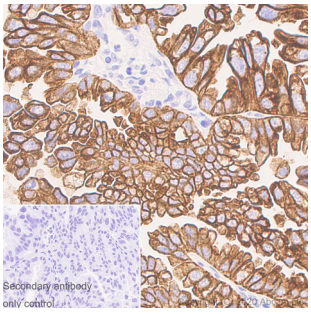
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images



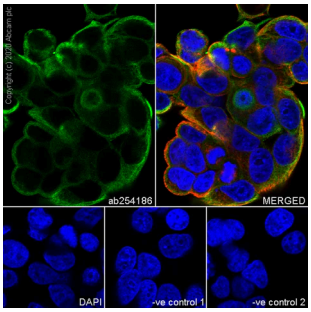
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [LP2K] - BSA and Azide free (ab255939)

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

This data was developed using ab254186, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded human lung carcinoma tissue labeling Cytokeratin 19 with ab254186 at 1/10000 (0.105 µg/ml) dilution followed by ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Membranous staining on human lung carcinoma is observed. The section was incubated with ab254186 for 30 mins at room temperature and followed by specific mouse IgG antibody (ab190482) for 8mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 19 antibody [LP2K] - BSA and Azide free (ab255939)

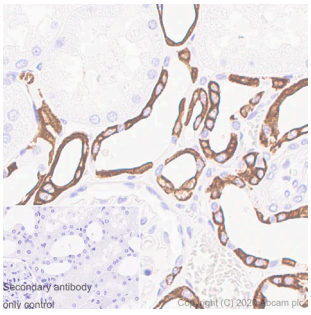
Cytokeratin 19 Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Cytokeratin 19 antibody

This data was developed using ab254186, the same antibody clone in a different buffer formulation.
Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 100% Methanol permeabilized MCF7 (human breast adenocarcinoma epithelial cell) cells labelling Cytokeratin 19 with ab254186 at 1/500 (2.096 µg/ml) dilution, followed by ab150113 Goat Anti-Mouse IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing cytoplasmic staining in MCF7 cells.

ab179513 Anti-beta Tubulin rabbit monoclonal antibody was used to counterstain tubulin at 1/200 dilution followed by ab150080 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) at a 1/1000 dilution (Red). The nuclear counterstain was DAPI (Blue).

Negative control 1: ab254186 at a 1/50 dilution followed by ab150080 at a 1/1000 dilution.

Negative control 2: ab179513 at a 1/200 dilution followed by ab150113 at a 1/1000 dilution.



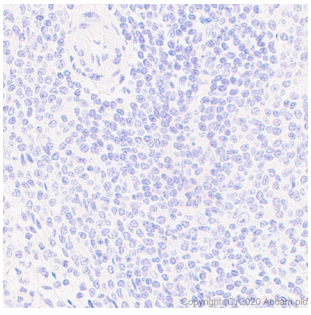
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [LP2K] - BSA and Azide free (ab255939)

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

This data was developed using ab254186, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded human kidney tissue labeling Cytokeratin 19 with ab254186 at 1/10000 (0.105 µg/ml) dilution followed by ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). Positive staining on human kidney is observed. The section was incubated with ab254186 for 30 mins at room temperature and followed by specific mouse IgG antibody (ab190482) for 8mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 19 antibody [LP2K] - BSA and Azide free (ab255939)

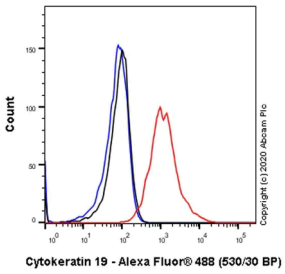
Cytokeratin 19 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Cytokeratin 19 antibody

This data was developed using ab254186, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded human spleen tissue labeling Cytokeratin 19 with ab254186 at 1/10000 (0.105 µg/ml) dilution followed by ready to use LeicaDS9800 (Bond™ Polymer Refine Detection). The section was incubated with ab254186 for 30 mins at room

temperature and followed by specific mouse IgG antibody (ab190482) for 8mins. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Negative control: no staining on human spleen.

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins.

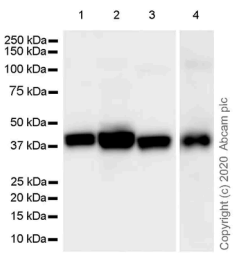


Flow Cytometry - Anti-Cytokeratin 19 antibody [LP2K] - BSA and Azide free (ab255939)

Cytokeratin 19 Flow Cytometry staining using mouse Anti-Cytokeratin 19 antibody

This data was developed using ab254186, the same antibody clone in a different buffer formulation.
Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized MCF7 (Human breast adenocarcinoma epithelial cell) cells labelling Cytokeratin 19 with ab254186 at 1/1000 dilution (0.1µg) (Red) compared with a Mouse monoclonal IgG (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue).

Goat anti mouse IgG (Alexa Fluor® 488, ab150113) at 1/2000 dilution was used as the secondary antibody.



Western blot - Anti-Cytokeratin 19 antibody [LP2K] - BSA and Azide free (ab255939)

This data was developed using ab254186, the same antibody clone in a different buffer formulation.
Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure times: Lanes 1-3: 3 secs; Lane 4: 48 secs.

All lanes:
Western blot - Anti-Cytokeratin 19 antibody [LP2K] (ab254186) at 1/2000 dilution

Lane 1:
HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
HT-29 (human colorectal adenocarcinoma epithelial cell) whole cell lysate at 20 µg

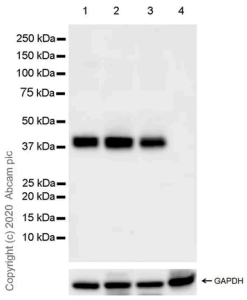
Lane 4:
Human skin tissue lysate at 20 µg

Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 44 kDa

Observed band size: 40 kDa



Western blot - Anti-Cytokeratin 19 antibody [LP2K] - BSA and Azide free (ab255939)

This data was developed using ab254186, the same antibody clone in a different buffer formulation.
The expression profile observed is consistent with what has been described in the literature (PMID: 24309898).
Negative control: human spleen (PMID: 24309898).

Blocking/Dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-Cytokeratin 19 antibody [LP2K] (ab254186) at 1/2000 dilution

Lane 1:
Human kidney tissue lysate at 20 µg

Lane 2:
Human colon tissue lysate at 20 µg

Lane 3:
Human stomach tissue lysate at 20 µg

Lane 4:
Human spleen tissue lysate at 20 µg

Secondary

All lanes:
Peroxidase-Conjugated Goat anti-Mouse IgG (H+L) at 1/10000 dilution

Predicted band size: 44 kDa

Observed band size: 40 kDa

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