abcam

ab185032

Alexa Fluor® 488 Anti-Cytokeratin 17 antibody [EP1623] - Cytoskeleton Marker

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Conjugation	Alexa Fluor® 488
Excitation/Emission	Ex: 495nm, Em: 519nm
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	EP1623
Purification technique	Affinity purification Protein A
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 - 1/100
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	ab199091 - Rabbit monoclonal IgG (Alexa FluorÂ® 488), is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	-

Predicted

Species	Mouse, Rat

Dilution info	-
Notes	-

Target data

See full target information KRT17

Function	Type I keratin involved in the formation and maintenance of various skin appendages, specifically in determining shape and orientation of hair (By similarity). Required for the correct growth of hair follicles, in particular for the persistence of the anagen (growth) state (By similarity). Modulates the function of TNF in the specific context of hair cycling. Regulates protein synthesis and epithelial cell growth through binding to the adapter protein SFN and by stimulating Akt/mTOR pathway (By similarity). Involved in tissue repair. May be a marker of basal cell differentiation in complex epithelia and therefore indicative of a certain type of epithelial 'stem cells'. Acts as a promoter of epithelial proliferation by acting a regulator of immune response in skin: promotes Th1/Th17-dominated immune environment contributing to the development of basaloid skin tumors (By similarity). May act as an autoantigen in the immunopathogenesis of psoriasis, with certain peptide regions being a major target for autoreactive T-cells and hence causing their proliferation.

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

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.

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Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Cytokeratin 17 often called K17 or keratin 17 is a type I intermediate filament protein with a molecular weight of approximately 46 kDa. It forms part of the cytoskeleton in epithelial cells and is notably present in the basal cells of epithelial tissues including the skin hair follicles and the lining of internal organs. Due to its specific expression pattern K17 serves as a useful biomarker in various research and clinical settings.
Biological function summary	The roles of K17 extend beyond mere structural support. This protein contributes to cellular processes such as proliferation tissue repair and the regulation of immune responses. K17 often forms a complex with its partner keratin 6 enabling structural stability and resilience in epithelial cells. Its presence influences the behavior of the cells in skin and other epithelial-lined organs.
Pathways	K17 participates in key pathways related to skin biology and inflammation notably the Wnt/β-catenin and NF-κB signaling pathways. These pathways connect K17 to cellular processes like growth differentiation and inflammation. In particular keratin 6 is another important protein in these cascades closely interacting with K17 in maintenance and repair processes within epithelial tissues.
Associated diseases and disorders	K17 has been implicated in psoriasis and certain types of cancer such as cervical and breast cancer. In psoriasis an inflammatory skin condition K17 interacts with pro-inflammatory cytokines contributing to the hyperproliferative state of the skin. Its overexpression serves as a marker in diagnosing and understanding the severity of these disorders highlighting its relationship with keratin 6 which is

similarly upregulated in psoriatic lesions and certain tumors. These associations make K17 a significant focus for therapeutic targeting and diagnostic applications.

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

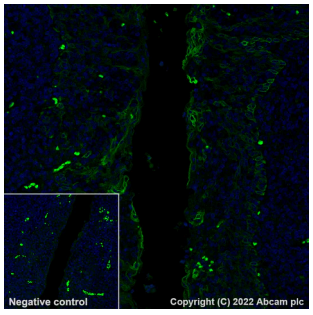
We do not recommend this combination. It is not covered by our product promise.

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.

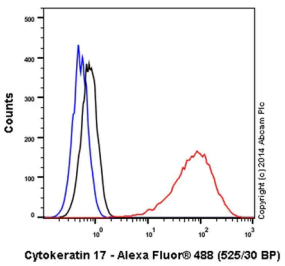
4 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-Cytokeratin 17 antibody [EP1623] - Cytoskeleton Marker (ab185032)

Cytokeratin 17 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human tonsil tissue using rabbit Anti-Cytokeratin 17 antibody

Immunohistochemistry analysis of paraffin-embedded human tonsil tissue sections labelling Cytokeratin 17 with ab185032 at 1/100 dilution. The section was incubated with ab185032 for 60 mins at room temperature (shown in green). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 40 mins. Membrane staining on human tonsil tissue. The immunostaining was performed on a Leica Biosystems BOND RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Negative Control: The negative control is PBS.

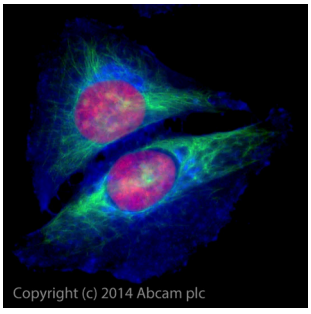


Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-Cytokeratin 17 antibody [EP1623] - Cytoskeleton Marker (ab185032)

Cytokeratin 17 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 17 antibody

Overlay histogram showing HeLa cells stained with ab185032 (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 (ab185032, 1/500 dilution) for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) Alexa Fluor® 488 used at the same concentration and conditions as the primary antibody. 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.

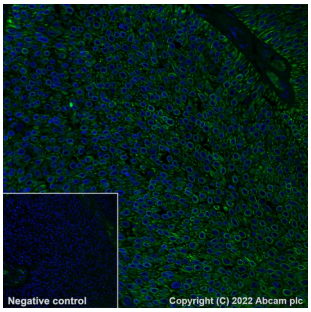
This antibody gave a positive signal in HeLa fixed with 4% formaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Cytokeratin 17 antibody [EP1623] - Cytoskeleton Marker (ab185032)

Cytokeratin 17 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 17 antibody

ab185032 staining Cytokeratin 17 in HeLa cells. The cells were fixed with 100% methanol (5min) and then blocked in 1% BSA/10% normal goat serum/0.3M glycine in 0.1%PBS-Tween for 1h. The cells were then incubated with ab185032 at 1/50 dilution overnight at +4°C (shown in green). AlexaFluor®350 WGA was used at a 1/200 dilution and incubated for 1h with the cells, to label plasma membranes (shown in blue). Nuclear DNA was labelled in red with 1.25 µM DRAQ5™ (ab108410).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Alexa Fluor® 488 Anti-Cytokeratin 17 antibody [EP1623] - Cytoskeleton Marker (ab185032)

Cytokeratin 17 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human bladder cancer tissue using rabbit Anti-Cytokeratin 17 antibody

Immunohistochemistry analysis of paraffin-embedded human bladder cancer tissue sections labelling Cytokeratin 17 with ab185032 at 1/100 dilution. The section was incubated with ab185032 for 60 mins at room temperature (shown in green). Nuclear DNA was labeled with DAPI (shown in blue). The section was then mounted using Fluoromount®. Antigen retrieval was heat mediated with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 40 mins. Membrane staining on human bladder cancer tissue. The immunostaining was performed on a Leica Biosystems BOND RX instrument. Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8). Negative Control: The negative control is PBS.

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