abcam

ab198584

Alexa Fluor® 488 Anti-Cytokeratin 13 antibody [EPR3671]

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	EPR3671
Purification technique	Affinity purification Protein A
Dissociation constant	1.2 x 10^{-11} 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	1/100
Notes	This product gave a positive signal in A431 cells fixed with 4% formaldehyde (10 min) and 100% methanol (5 min).

Predicted

Species	Mouse
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

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

Predicted

Species	Mouse
Dilution info	-
Notes	-

IHC-P

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Predicted

Species	Mouse

Dilution info	-
Notes	-

Target data

See full target information Keratin, type I cytoskeletal 13

Function	Type 1 keratin (Probable). Maintains postnatal tongue mucosal cell homeostasis and tissue organization in response to mechanical stress, potentially via regulation of the G1/S phase cyclins CCNE1 and CCNE2 (By similarity).

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, 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.

Supplementary info

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

Activity summary	Cytokeratin 13 also known as KRT13 or CK13 is a type I intermediate filament protein weighing approximately 44 kDa. It is one of the cytokeratin types that plays a critical role in the mechanical stability and integrity of epithelial cells. Cytokeratin 13 is expressed in the stratified squamous epithelium particularly in the upper layers of non-cornified epithelia which include the esophagus tongue and cervix. This protein forms heteropolymers with type II keratins contributing to the cytoskeletal filament network within epithelial cells.
Biological function summary	This protein participates in maintaining the structural framework and dynamics within epithelial tissues. As part of the cytoskeletal complex cytokeratin 13 supports cellular resilience against mechanical stress. It interacts with other cytokeratins contributing to the formation of a robust keratin filament network essential for epithelial cell function and differentiation. Its expression and regulation are key to the homeostasis of the tissues where it is found ensuring proper cell division and tissue integrity.
Pathways	Cytokeratin 13 integrates into epithelial cell differentiation and repair processes. It is involved in the epithelial-mesenchymal transition (EMT) pathway important for tissue development wound healing and cancer metastasis. During the EMT process cytokeratin 13 often works alongside proteins like E-cadherin and Vimentin mediating changes in epithelial cell architecture and polarity. This modulation is essential for cellular plasticity and response to environmental cues.
Associated diseases and disorders	Cytokeratin 13 has associations with certain epithelial tissue abnormalities such as oral squamous cell carcinoma and a subgroup of inherited blistering diseases like epidermolysis bullosa. In oral squamous cell carcinoma dysregulation of cytokeratin 13 expression may indicate tumor progression and metastasis. In epidermolysis bullosa mutations affecting keratin interactions including those with other keratins like cytokeratin 14 can lead to fragile skin and mucosal surfaces resulting in increased susceptibility to physical damage and impaired healing.

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

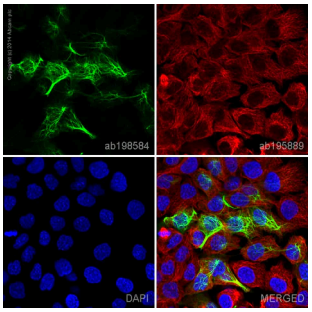
We do not recommend this combination. It is not covered by our product promise.

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.

2 product images

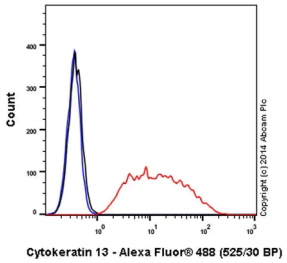


Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Cytokeratin 13 antibody [EPR3671] (ab198584)

Cytokeratin 13 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 13 antibody

ab198584 staining Cytokeratin 13 in A431 cells. The cells were fixed with 100% methanol (5 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 overnight at +4°C with ab198584 at a 1/100 dilution (shown in green) and ab195889, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at a 1/250 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in A431 cells fixed with 4% formaldehyde (10 min).



Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-Cytokeratin 13 antibody [EPR3671] (ab198584)

Cytokeratin 13 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 13 antibody

Overlay histogram showing A431 cells stained with ab198584 (red line). The cells were fixed with 4% formaldehyde (10 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 (ab198584, 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 A431 fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Triton X-100 for 20 min used under the same conditions.

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