abcam

ab277270

Alexa Fluor® 488 Anti-pan Cytokeratin antibody [C-11]

Anti-pan Cytokeratin antibody [C-11] - Alexa Fluor® 488 conjugated (ab277270) is a mouse recombinant monoclonal antibody detecting pan Cytokeratin in **Flow Cytometry (Intra)**. Suitable for **Human**.

- Biophysical QC for unrivalled batch-batch consistency

Recombinant

Key facts

Isotype	IgG1
Host species	Mouse
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	C-11
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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/2500
Notes	-

Expected

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

ICC

Tested

Species	Human
Dilution info	1 µg/mL
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Expected

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

IHC-P

Expected

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

Target data

See full target information KRT1

Function	May regulate the activity of kinases such as PKC and SRC via binding to integrin beta-1 (ITB1) and the receptor of activated protein C kinase 1 (RACK1). In complex with C1QBP is a high affinity receptor for kininogen-1/HMWK.

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

What is this antibody validated in?
Alexa Fluor® 488 Anti-pan Cytokeratin antibody [C-11] (ab277270) is a mouse recombinant monoclonal antibody and is validated for use in Flow Cytometry (Intra) in Human samples.

Related products
Antibody clone C-11 is also available pre-conjugated to a variety of labels for your convenience – Anti-pan Cytokeratin Alexa Fluor® 488 [C-11] (ab277270).

Other related products
We have a range of other formats of antibody clone [C-11] also available for your convenience: ab7753, PE - ab52460, APC - ab106166, Carrier free - ab264485, ab269366, Alexa Fluor® 594 - ab277234, Alexa Fluor® 488 - ab277270, Alexa Fluor® 555 - ab279324, Oligonucleotide - ab279360, Alexa Fluor® 647 - ab309978

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	Pan cytokeratin also known as cytokeratin AE1/AE3 is a cytoskeletal protein complex that consists of different keratin polypeptides. It mechanically supports epithelial cells contributing to their structural integrity. The protein mass is variable due to its composite nature ranging between 40 to 67 kDa. Pan cytokeratin is expressed in epithelial tissues throughout the body serving as a reliable marker for identifying epithelial origin cells in histological studies.
Biological function summary	Keratins in pan cytokeratin contribute to maintaining structural stability within epithelial cells. They act as components of the cytoskeletal network interacting with other cellular structures to provide protection from stress and mechanical damage. Pan cytokeratin exists as part of the intermediate filament protein complex which plays a significant role in cellular mechanics and cohesion essential for tissue integrity.
Pathways	Intermediate filaments containing pan cytokeratin participate in pathways related to cell differentiation and stress response. Its interactions with other proteins like desmoplakin and plectin link the cytoskeletal filaments to cell membranes and the extracellular matrix. This involvement is important in pathways related to cellular structural integrity and epithelial-mesenchymal transition (EMT).
Associated diseases and disorders	Pan cytokeratin serves as a critical marker in the diagnosis of epithelial-derived cancers such as carcinoma and conditions like psoriasis. Abnormal expression patterns of pan cytokeratin indicate tumor presence and origin. Its connection to proteins such as E-cadherin and vimentin assists in understanding the progression and metastasis of cancer by facilitating EMT and tissue invasion diagnostics.

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.

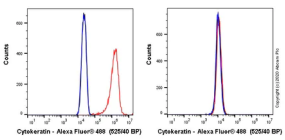
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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
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2 product images



Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-pan Cytokeratin antibody [C-11] (ab277270)

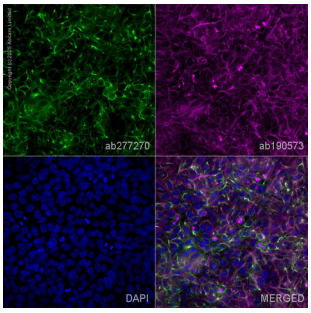
Pan Cytokeratin Flow Cytometry (Intracellular) staining using mouse Anti-pan Cytokeratin antibody

Flow cytometry overlay histogram showing left HeLa positive cells and right negative Jurkat cells stained with ab277270 (red line). The cells were fixed with 80 % methanol (5 min) and then permeabilized with 0.1% PBS-Triton X-100 for 15 min. The cells were then incubated in 1x PBS containing 10 % normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab277270) (1x 10^6 in 100µL at 0.2µg/mL (1/2500)) for 30 min at 22°C.

Isotype control antibody (black line) was Mouse IgG1κ 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 >5000 events were collected using a 50 mW Blue laser (488nm) and 525/40 bandpass filter.

This antibody gave a positive signal in HeLa cells fixed with 4 % formaldehyde (10 min) / permeabilized with 0.1% PBS-Triton X-100 for 15 min used under the same conditions.



Immunocytochemistry - Alexa Fluor® 488 Anti-pan Cytokeratin antibody [C-11] (ab277270)

Pan Cytokeratin Immunocytochemistry staining of A431 (Human pan cytokeratin) cells using mouse Anti-pan Cytokeratin antibody

ab277270 staining pan Cytokeratin cells. The cells were fixed with 100% methanol (5 min) then 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 ab277270 at at 1µg/ml (shown in green) and ab190573, Rabbit monoclonal [EP1332Y] to alpha Tubulin 4 - Microtubule Marker (Alexa Fluor® 647), pre-adsorbed at 1/250 dilution (shown in magenta) dilution, overnight at 4°C. Nuclear DNA was labelled in blue with DAPI (shown in blue).

Also suitable in cells fixed with 4% paraformaldehyde (10 minutes).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

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