abcam

ab8068

Anti-pan Keratin antibody [80]

Anti-pan Keratin antibody [80] (ab8068) is a mouse monoclonal antibody detecting pan Keratin in **Western Blot, Flow Cytometry, IHC-P, IHC-Fr, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Over 40 publications
- Trusted since 2001

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.3 Preservative: 0.07% Sodium azide Constituents: 1% Fetal calf serum
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Human KRT1. Database link P04264
Clone number	80
Purity	Tissue culture supernatant

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1/20
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Expected

Species	Mouse
Dilution info	-
Notes	For paraffin embedded tissue a TUF pretreatment is recommended.

Species	Rat
Dilution info	-
Notes	For paraffin embedded tissue a TUF pretreatment is recommended.

Species	Human
Dilution info	-
Notes	For paraffin embedded tissue a TUF pretreatment is recommended.

ICC/IF

Tested

Species	Human
Dilution info	1 µg/mL
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-Fr

Expected

Species	Mouse
Dilution info	-
Notes	Stains all types of keratin containing cells (epithelia) in frozen sections of various tissues, with the exception of myoepithelial cells.

Species	Rat
Dilution info	-
Notes	Stains all types of keratin containing cells (epithelia) in frozen sections of various tissues, with the exception of myoepithelial cells.

Species	Human
Dilution info	-
Notes	Stains all types of keratin containing cells (epithelia) in frozen sections of various tissues, with the exception of myoepithelial cells.

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

Notes

What is this antibody validated in?
Anti-pan Keratin antibody [80] (ab8068) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P), Immunohistochemistry (IHC-Fr), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of pan Keratin?
Anti-pan Keratin [80] (ab8068) specifically detects a band for pan Keratin (UniProt: P35908) at a molecular weight of 65kDa.

Trusted by the scientific community
Anti-pan Keratin [80] (ab8068) was first used in a scientific publication in 2001 and has been cited over 40 times in peer-reviewed journals.

Reviewed by scientists
Anti-pan Keratin [80] (ab8068) has over 10 independent reviews from customers.

Supplementary info

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

Activity summary	Pan Keratin also known as pan-keratin is a complex mixture of intermediate filament proteins essential for the mechanical stability of epithelial cells. These keratins have a range of molecular weights between 40 and 67 kDa. Keratin expression occurs in epithelial tissues where they form a dense network providing structural support. Researchers commonly employ anti-keratin antibodies and

	anti-pan keratin antibodies to study various epithelial tissues as these antibodies broadly recognize keratin proteins allowing for a comprehensive pan keratin stain in histological applications.
Biological function summary	Keratins contribute to cellular integrity and resilience against mechanical stress. They function within the cytoskeleton by forming filamentous networks that link to desmosomes. These filaments involve several keratin types and non-keratin proteins as part of a larger complex. Pan keratin immunostain techniques help visualize these structures demonstrating their important role in maintaining epithelial barrier function and tissue architecture which includes stratified and simple epithelia. The interaction of keratins with other cytoskeletal elements underlines their significance in cellular biology.
Pathways	Keratins are integral to the cytoskeleton organization and cell adhesion pathways. Cell junctions such as desmosomes rely on keratin filaments for stability and signal transduction. Connections exist with proteins such as desmoplakin and plakoglobin which are important in maintaining cell-cell adhesion and communication. Researchers often use keratin stains to examine epithelial tissue organization giving insights into disruptions within these pathways that can affect tissue function.
Associated diseases and disorders	Keratin expression patterns serve as markers in diagnosing epithelial-derived tumors such as carcinomas and certain skin disorders. Abnormal keratin expression can indicate epithelial tissue transformation contributing to cancer development or progression. For example variations in specific keratin types are markers for different carcinoma types. Moreover disorders involving the skin like epidermolysis bullosa simplex may relate to mutations in keratin genes. Understanding these connections enables researchers to explore potential therapeutic approaches by targeting related proteins and 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

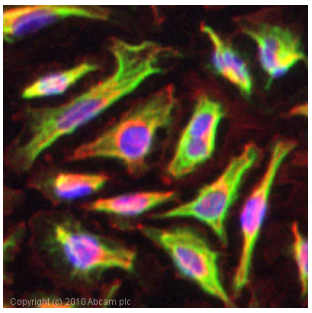
We do not recommend this combination. It is not covered by our product promise.

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.

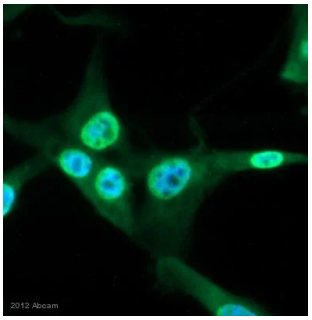
3 product images



Immunocytochemistry/ Immunofluorescence - Anti-pan Keratin antibody [80] (ab8068)

Pan Keratin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-pan Keratin antibody

ICC/IF image of ab8068 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab8068, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

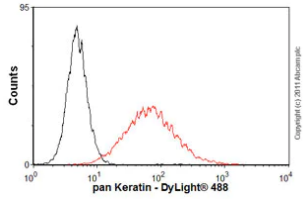


This image is courtesy of an anonymous customer review

Immunocytochemistry/ Immunofluorescence - Anti-pan Keratin antibody [80] (ab8068)

Pan Keratin Immunocytochemistry/ Immunofluorescence staining using mouse Anti-pan Keratin antibody

ab8068 staining pan Keratin in Human glioblastoma cell line by ICC/IF (Immunocytochemistry/Immunofluorescence). The cells were fixed with paraformaldehyde; permeabilized with 0.1% Triton X 100 in PBS and blocked with 0.5% BSA for 30 minutes at room temperature. Samples were incubated with primary antibody (1/50 dilution in 0.5% BSA in PBS) for 16hours at 4°C. An Alexa Fluor® 488 anti-mouse was used as a secondary antibody at 1/400 dilution.



Flow Cytometry - Anti-pan Keratin antibody [80] (ab8068)

Pan Keratin Flow Cytometry staining using mouse Anti-pan Keratin antibody

Overlay histogram showing A431 cells stained with ab8068 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Triton 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 (ab8068, 1/20 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1](ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

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