abcam

ab80826

Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free

Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826) is a mouse monoclonal antibody provided in a PBS only buffer for easy conjugation detecting pan Cytokeratin in **Flow Cytometry, IHC-P, ICC/IF**. Suitable for **Human**.

- BSA, sodium azide, and glycerol-free for easy conjugation
- Over 20 publications
- Trusted since 2009

Advanced Validation

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Native Full Length Protein corresponding to Human KRT76. Database link Q01546
Carrier free	Yes
Clone number	AE1/AE3
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	-
Notes	Boiling tissue sections in 1mM EDTA (pH 8.0), for 10-20min followed by cooling at RT for 20min is required. Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Flow Cyt

Tested

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

Mass Cytometry

Tested

Species	Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information KRT76

Function	Probably contributes to terminal cornification.

Storage

Shipped at conditions	Blue Ice
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 Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826) is a mouse monoclonal antibody and is validated for use in Flow Cytometry (Flow Cyt), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

Trusted by the scientific community
Anti-pan Cytokeratin [AE1/AE3] - BSA and Azide free (ab80826) was first used in a scientific publication in 2009 and has been cited over 20 times in peer-reviewed journals.

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

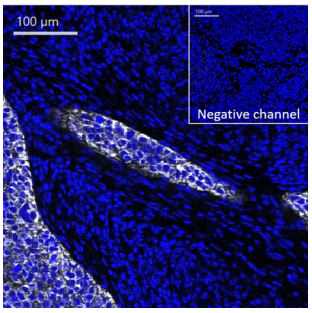
We do not recommend this combination. It is not covered by our product promise.

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.

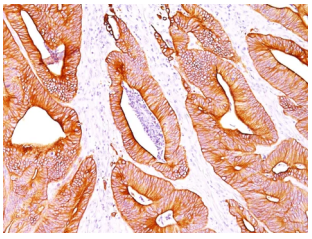
7 product images



This image is courtesy of the Single Cell & Imaging Mass Cytometry Analysis Platform, Goodman Cancer Research Centre, McGill University

Mass Cytometry - Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826)

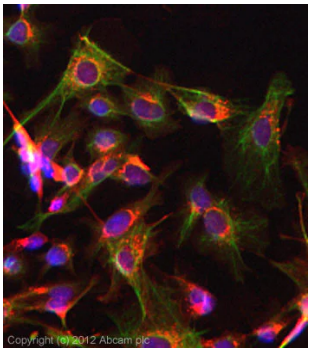
Imaging Mass Cytometry™ (IMC™) image of human lung cancer tissue stained with Anti-pan Cytokeratin antibody [AE1/AE3]. ab80826 (carrier-free antibody, purified) was metal-conjugated using a Maxpar® Antibody Labeling Kit from Fluidigm. Immunostaining was performed according to Fluidigm's protocols. Briefly, slides were subject to deparaffinization and heat-induced epitope retrieval, followed by overnight incubation at 4°C with an antibody cocktail containing metal-tagged antibodies in blocking buffer. Slides were subsequently washed with 0.2% Triton-X and 1x PBS, counterstained with Cell-ID™ Intercalator-Ir diluted at 1/400 in 1x PBS for 30 min at room temperature, rinsed for 5 min with distilled H2O, and air-dried prior to IMC™ acquisition. IMC™ acquisition was performed using the Fluidigm Hyperion™ Imaging System.
Imaging Mass Cytometry™, IMC™, Cell-ID™, Hyperion™ and Maxpar® are trademarks of Fluidigm Canada



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826)

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

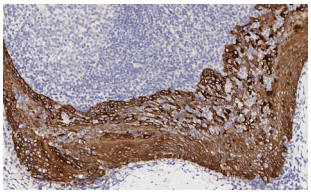
Immunohistochemical analysis of formalin-fixed, paraffin-embedded human colon carcinoma tissue with ab80826.



Immunocytochemistry/ Immunofluorescence - Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826)

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

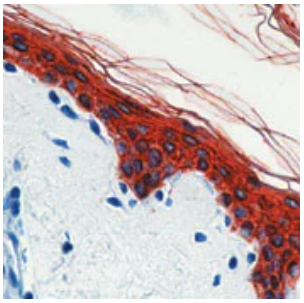
ICC/IF image of ab80826 stained HepG2 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab80826, 5µg/ml) overnight at +4°C. The secondary antibody (green) was ab96879, DyLight® 488 goat anti-mouse IgG (H+L) used at a 1/250 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 was generated using the ascites version of the product.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826)

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

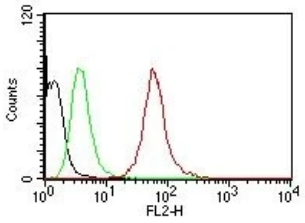
Immunohistochemical analysis of formalin-fixed, paraffin-embedded human tonsil tissue with ab80826 at 1/400 dilution. Anti-Mouse HRP polymer was used as the secondary detection system. Heat-mediated antigen retrieval was performed using citrate based pH 6.0 buffer.
This image was generated using the ascites version of the product.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826)

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

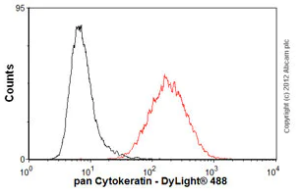
Immunohistochemistry analysis of formalin-fixed, paraffin-embedded Human skin tissue using 1/50 ab80826, a peroxidase-conjugated secondary antibody and an AEC chromogen. Note cytoplasmic staining of epithelial cells.
This image was generated using the ascites version of the product.



Flow Cytometry - Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826)

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

Flow Cytometry analysis of HeLa cells labeling pan Cytokeratin with ab80826 (red). Cells without primary incubation (black) and Isotype Control (green).



Flow Cytometry - Anti-pan Cytokeratin antibody [AE1/AE3] - BSA and Azide free (ab80826)

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

Overlay histogram showing A431 cells stained with ab80826 (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 (ab80826, 1µg/1x10^6 cells) 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.
This image was generated using the ascites version of the product.

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