abcam

ab220804

Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free

Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804) is a rabbit recombinant monoclonal antibody provided in a PBS only buffer for easy conjugation. Suitable for **Western Blot, Flow Cytometry (Intra), IHC-P, IHC-Fr, ICC/IF** in **Human, Mouse, Rat**.

- KO validated for confirmed specificity
- BSA, sodium azide, and glycerol-free for easy conjugation
- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | KO Validated

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR17078
Purification technique	Affinity purification Protein A
Concentration	1.051 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IHC-Fr

Tested

Species	Mouse
Dilution info	-
Notes	-

Expected

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

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IHC-P

Tested

Species	Rat
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	-
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information KRT7

Function	Blocks interferon-dependent interphase and stimulates DNA synthesis in cells. Involved in the translational regulation of the human papillomavirus type 16 E7 mRNA (HPV16 E7).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

What is this antibody validated in?
Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunohistochemistry (IHC-P), Immunohistochemistry (IHC-Fr), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse, Rat samples.

What is the molecular weight of Cytokeratin 7?
Anti-Cytokeratin 7 [EPR17078] - BSA and Azide free (ab220804) specifically detects a band for Cytokeratin 7 (UniProt: Q9DCV7) at a molecular weight of 51kDa.

Other related products
We have a range of other formats of antibody clone [EPR17078] also available for your convenience: ab181598, Alexa Fluor® 488 - ab208273, Alexa Fluor® 647 - ab209599, Alexa Fluor® 594 - ab209600, Alexa Fluor® 555 - ab209601, HRP - ab209945, PE - ab213193, Carrier free - ab220804

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.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

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

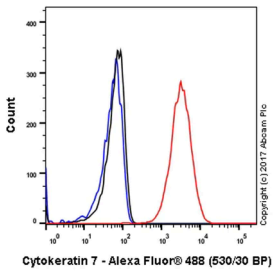
We do not recommend this combination. It is not covered by our product promise.

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.

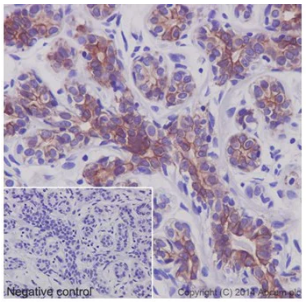
7 product images



Flow Cytometry (Intracellular) - Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804)

Cytokeratin 7 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 7 antibody

Intracellular Flow Cytometry analysis of A549 (human lung carcinoma) cells labeling Cytokeratin 7 (red) with ab181598 at a 1/1500 dilution. Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (ab172730). Blue (unlabeled control) - Cells without incubation with primary and secondary antibodies.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181598).



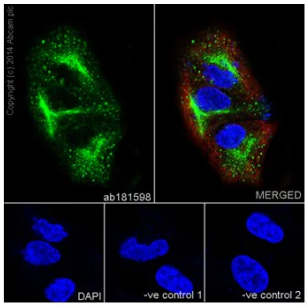
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804)

Cytokeratin 7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 7 antibody

Immunohistochemical analysis of paraffin-embedded Human mammary gland tissue labeling Cytokeratin 7 with ab181598 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ab97051 at 1/500 dilution. Membrane and cytoplasmic staining on epithelial cells of breast tissues is observed. Counter stained with Hematoxylin.
Negative control: Using PBS instead of primary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181598).

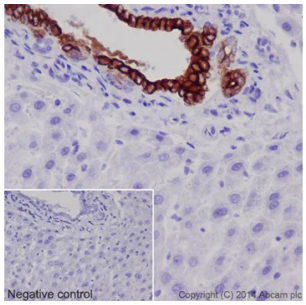
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804)

Cytokeratin 7 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 7 antibody

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 A549 (Human lung carcinoma) cells labeling Cytokeratin 7 with ab181598 at 1/100 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (ab150077) secondary antibody at 1/400 dilution (green). Cytoplasmic staining on A549 cell line is observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with ab7291 (anti-Tubulin mouse mAb) at 1/500 dilution and ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls are as follows;
1. ab181598 at 1/100 dilution followed by ab150120 (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
2. ab7291 (anti-Tubulin mouse mAb) at 1/500 dilution followed by ab150077 (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/400 dilution.
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181598).



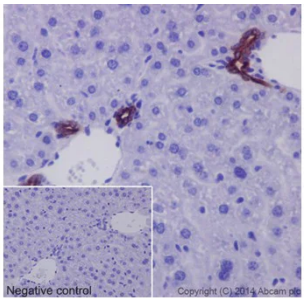
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804)

Cytokeratin 7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 7 antibody

Immunohistochemical analysis of paraffin-embedded Rat liver tissue labeling Cytokeratin 7 with ab181598 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ab97051 at 1/500 dilution. On rat liver, only bile duct epithelia are positive, no reaction in hepatocytes is observed. Counter stained with Hematoxylin.
Negative control: Using PBS instead of primary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181598).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



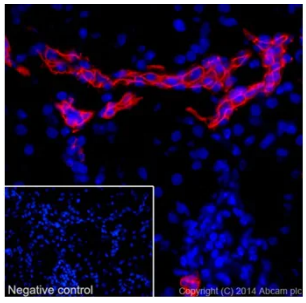
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804)

Cytokeratin 7 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 7 antibody

Immunohistochemical analysis of paraffin-embedded Mouse liver tissue labeling Cytokeratin 7 with ab181598 at 1/8000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ab97051 at 1/500 dilution. On mouse liver, only bile duct epithelia are positive, no reaction in hepatocytes is observed. Counter stained with Hematoxylin.
Negative control: Using PBS instead of primary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181598).

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

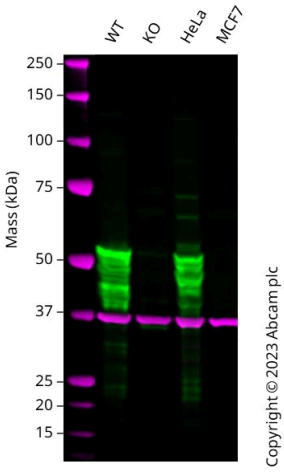


Immunohistochemistry (Frozen sections) - Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804)

Cytokeratin 7 Immunohistochemistry (Frozen sections) staining using rabbit Anti-Cytokeratin 7 antibody

Immunohistochemical analysis of frozen Mouse kidney tissue labeling Cytokeratin 7 with ab181598 at 1/8000 dilution, followed by Donkey anti-rabbit Alexa Fluor 594 at 1/1000 dilution. Cytoplasmic staining on collecting tube is observed. This data is from our collaborator Dr. Hai Song’ s lab (Life Sciences Institute Zhejiang University). Counter stained with DAPI.
Negative control: Using PBS instead of primary antibody.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181598).



Western blot - Anti-Cytokeratin 7 antibody [EPR17078] - BSA and Azide free (ab220804)

Cytokeratin 7 Western blot staining using rabbit Anti-Cytokeratin 7 antibody

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab181598). Western blot: Anti-KRT7 antibody [EPR17078] (ab181598) staining at 1/1000 dilution, shown in green; Mouse anti-GAPDH antibody [6C5] (ab8245) loading control staining at 1/20000 dilution, shown in magenta. In Western blot, ab181598 was shown to bind specifically to KRT7. A band was observed at 40-55 kDa in wild-type A549 cell lysates with no signal observed at this size in KRT7 knockout cell line. To generate this image, wild-type and KRT7 knockout A549 cell lysates were analysed. First, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 3% milk in TBS-0.1% Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4°C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit IgG H&L 800CW and Goat anti-Mouse IgG H&L 680RD at 1/20000 dilution.
All lanes:
Western blot - Anti-Cytokeratin 7 antibody [EPR17078] - Cytoskeleton Marker (ab181598) at 1/10000 dilution

Lane 1:
Wild-type A549 cell lysate at 20 µg

Lane 2:
KRT7 knockout A549 cell lysate at 20 µg

Lane 3:
HeLa cell lysate at 20 µg

Lane 4:
MCF7 cell lysate at 20 µg

Observed band size: 40-55 kDa

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