abcam

ab68459

Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker

Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459) is a rabbit monoclonal antibody detecting Cytokeratin 7 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human**.

- KO validated for confirmed specificity
- Biophysical QC for unrivalled batch-batch consistency
- Over 30 publications
- Trusted since 2008

Lab Essentials | Recombinant | RabMAb | KO Validated | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR1619Y
Purification technique	Affinity purification Protein A
Dissociation constant	2.1 x 10^{-10} M
Concentration	0.134 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/1000
Notes	**For unpurified use at 1/100 - 1/250.** Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

IP

Tested

Species	Human
Dilution info	1/20 - 1/30
Notes	-

WB

Tested

Species	Human
Dilution info	1/5000 - 1/10000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100 - 1/250
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20 - 1/30

Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

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	Conditional Ambient
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-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human samples.

What is the molecular weight of Cytokeratin 7?
Anti-Cytokeratin 7 [EPR1619Y] - Cytoskeleton Marker (ab68459) specifically detects a band for Cytokeratin 7 (UniProt: P08729) at a molecular weight of 51kDa.

Trusted by the scientific community
Anti-Cytokeratin 7 [EPR1619Y] - Cytoskeleton Marker (ab68459) was first used in a scientific publication in 2008 and has been cited over 30 times in peer-reviewed journals.

Specificity confirmed
The specificity of Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459) has been confirmed by Western blot testing in KRT7 Knockout A549 cells.

Other related products
We have a range of other formats of antibody clone [EPR1619Y] also available for your convenience: ab68459, Carrier free - ab181831, Alexa Fluor® 488 - ab185048, Alexa Fluor® 647 - ab192077, HRP - ab192079, Alexa Fluor® 594 - ab203427, Alexa Fluor® 555 - ab203434, PE - ab210628, Carrier free - ab302460

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our selection of trial-size antibodies.

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

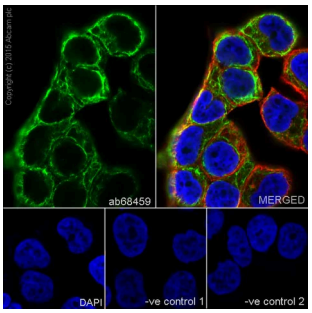
We do not recommend this combination. It is not covered by our product promise.

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.

16 product images



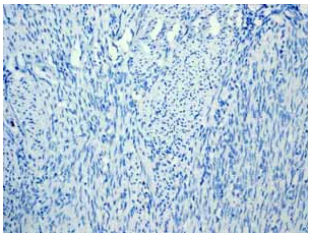
Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

Immunocytochemistry/Immunofluorescence analysis of T47D cells labelling Cytokeratin 7 with purified ab68459 at a dilution of 1/100. Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain. ab7291, a mouse anti-tubulin (1/1000) and ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000) were also used.
Control 1: primary antibody (1/100) and secondary antibody, ab150120, an Alexa Fluor® 594-conjugated goat anti-mouse IgG (1/1000).

Control 2: ab7291 (1/1000) and secondary antibody, ab150077, an Alexa Fluor® 488-conjugated goat anti-rabbit IgG (1/1000).

Alexa Fluor® 488 (ab185048) and Alexa Fluor® 647 (ab192077) conjugated versions are available for this clone.

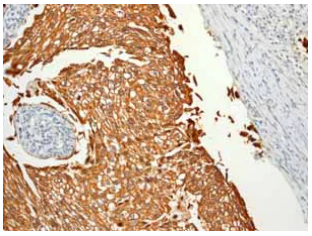


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

ab68459 showing negative staining in human sarcoma tissue.

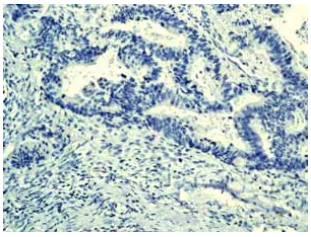
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human urinary bladder transitional carcinoma tissue labelling Cytokeratin 7 with unpurified ab68459. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

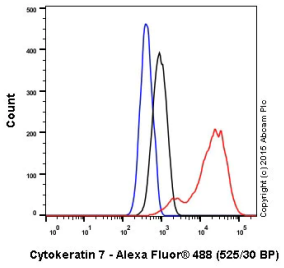


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

ab68459 showing negative staining in human colonic adenocarcinoma tissue.

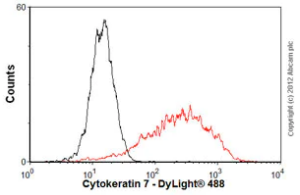
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

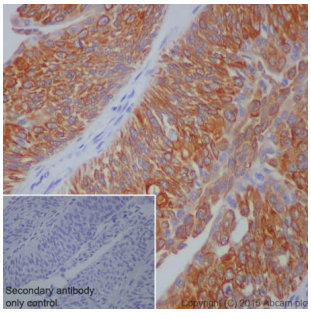
Intracellular Flow Cytometry analysis of HeLa cells labelling Cytokeratin 7 with purified ab68459 at a dilution of 1/20 (red). Cells were fixed with 80% methanol. An Alexa Fluorr®488-conjugated goat anti-rabbit IgG (1/500) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.
Alexa Fluorr®488 (ab185048) and Alexa Fluorr®647 (ab192077) conjugated versions are available for this clone.



Flow Cytometry (Intracellular) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

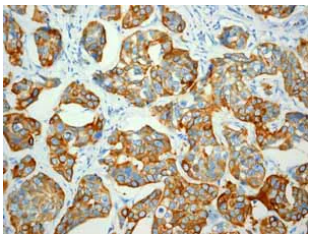
Overlay histogram showing HeLa cells stained with unpurified ab68459 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (unpurified ab68459, 1/100 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit IgG (monoclonal) (1µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human bladder carcinoma tissue labelling Cytokeratin 7 with purified ab68459 at a dilution of 1/1000. Heat mediated antigen retrieval was performed using EDTA buffer pH 9. ab97051, a HRP-conjugated goat anti-rabbit IgG (H+L) was used as the secondary antibody (1/500). Negative control using PBS instead of primary antibody. Counterstained with hematoxylin.

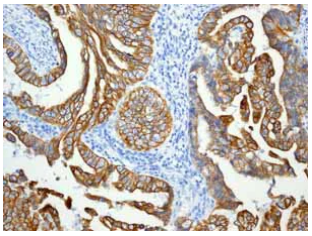


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human breast carcinoma tissue labelling Cytokeratin 7 with unpurified ab68459.

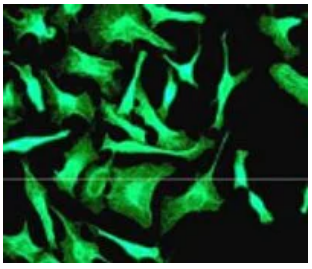
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

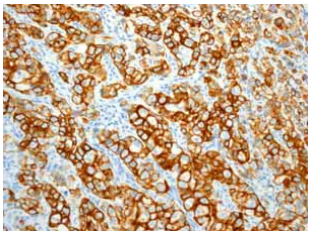
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human endometrial carcinoma tissue labelling Cytokeratin 7 with unpurified ab68459.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

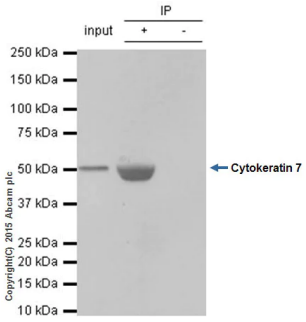
Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling Cytokerain 7 with unpurified ab68459 at a dilution of 1/100.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human ovarian carcinoma tissue labelling Cytokeratin 7 with unpurified ab68459.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

ab68459 (purified) at 1/20 immunoprecipitating Cytokeratin 7 in HeLa whole cell lysate.
Lane 1 (input): HeLa whole cell lysate (10µg)

Lane 2 (+): ab68459 + HeLa whole cell lysate.

Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab68459 in HeLa whole cell lysate.

For western blotting, VeriBlot for IP Detection Reagent (HRP) (ab131366), was used for detection at 1/1000 dilution.

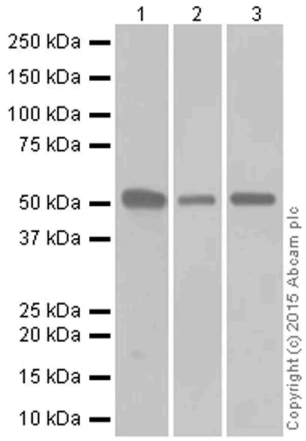
Blocking buffer and concentration: 5% NFDM/TBST.

Diluting buffer and concentration: 5% NFDM /TBST.

All lanes:
Immunoprecipitation - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

Predicted band size: 51 kDa

Observed band size: 51 kDa



Western blot - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

Blocking and dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459) at 1/10000 dilution

Lane 1:
HeLa whole cell lysate at 20 µg

Lane 2:
SK-OV-3 whole cell lysate at 20 µg

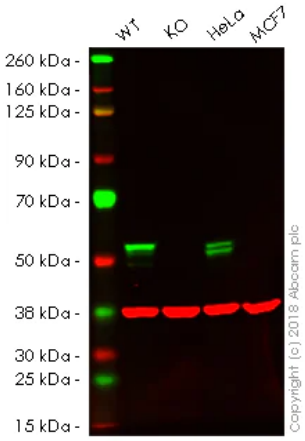
Lane 3:
T47D whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 51 kDa

Observed band size: 51 kDa



Western blot - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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

Lanes 1 - 4: Merged signal (red and green). Green - ab68459 observed at 50 kDa. Red - loading control, ab8245, observed at 37 kDa.
ab68459 was shown to specifically react with KRT7 (Cytokeratin 7) in wild-type A549 cells as signal was lost in KRT7 knockout cells. Wild-type and KRT7 knockout samples were subjected to SDS-PAGE. ab68459 and ab8245 (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/5000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed ab216773 and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed ab216776 secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes:
Western blot - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459) at 1/5000 dilution

Lane 1:
Wild-type A549 (Human lung carcinoma cell line) whole cell lysate at 20 µg

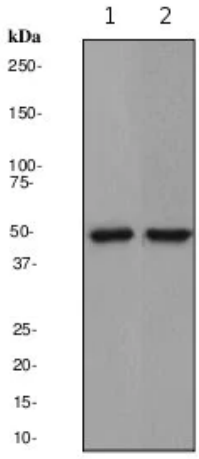
Lane 2:
Western blot - Human KRT7 knockout A549 cell line (ab261867) at 20 µg

Lane 3:
HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 4:
MCF7 (Human breast adenocarcinoma cell line) whole cell lysate at 20 µg

Predicted band size: 51 kDa

Observed band size: 50 kDa



Western blot - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

All lanes:
Western blot - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459) at 1/10000 dilution

Lane 1:
HeLa cell lysate at 10 µg

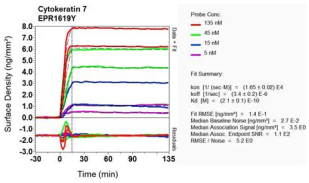
Lane 2:
T47D cell lysate at 10 µg

Secondary

All lanes:
HRP-conjugated goat anti-rabbit IgG at 1/2000 dilution

Predicted band size: 51 kDa

Observed band size: 51 kDa



OI-RD Scanning - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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