

## Product datasheet

# Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker ab68459

**KO VALIDATED** Recombinant RabMAB

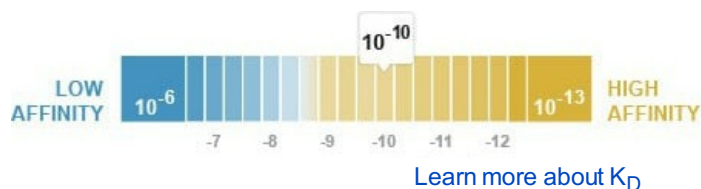
★★★★★ 1 Abreviews 23 References 17 Images

### Overview

<b>Product name</b>	Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker
<b>Description</b>	Rabbit monoclonal [EPR1619Y] to Cytokeratin 7 - Cytoskeleton Marker
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide within Human Cytokeratin 7 aa 1-100 (N terminal). The exact sequence is proprietary.
<b>Positive control</b>	WB: HeLa, SK-OV-3 and T47D cell lysates. IHC-P: Human ovarian carcinoma and human bladder carcinoma tissues. ICC/IF: HeLa and TD47 cells. Flow Cyt (intra): HeLa cells. IP: HeLa whole cell lysate ( <a href="#">ab150035</a> ).
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAB<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAB<sup>®</sup> patents</a>.</p> <p><b>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</b></p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.

**Dissociation constant (K<sub>D</sub>)**K<sub>D</sub> = 2.10 x 10<sup>-10</sup> M**Storage buffer**

pH: 7.20  
 Preservative: 0.01% Sodium azide  
 Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

**Purity**

Protein A purified

**Clonality**

Monoclonal

**Clone number**

EPR1619Y

**Isotype**

IgG

**Applications****The Abpromise guarantee**Our [Abpromise guarantee](#) covers the use of ab68459 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/20 - 1/30. <a href="#">ab172730</a> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/5000 - 1/10000. Detects a band of approximately 51 kDa (predicted molecular weight: 51 kDa).
IP		1/20 - 1/30.
IHC-P		1/1000. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. See <a href="#">IHC antigen retrieval protocols</a> . <b>For unpurified use at 1/100 - 1/250.</b>
ICC/IF	★★★★★ (1)	1/100 - 1/250.

**Target****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).

**Tissue specificity**

Expressed in cultured epidermal, bronchial and mesothelial cells but absent in colon, ectocervix and liver. Observed throughout the glandular cells in the junction between stomach and esophagus but is absent in the esophagus.

**Sequence similarities**

Belongs to the intermediate filament family.

**Post-translational**

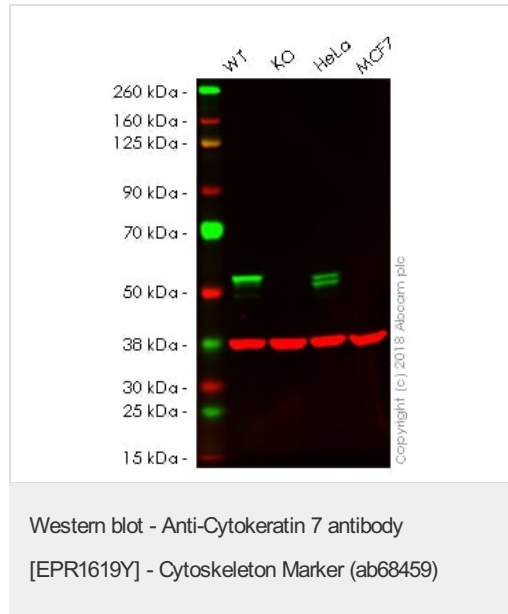
Arg-20 is dimethylated, probably to asymmetric dimethylarginine.

## modifications

## Cellular localization

Cytoplasm.

## Images



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

**Lane 1 :** Wild-type A549 whole cell lysate

**Lane 2 :** KRT7 knockout A549 whole cell lysate

**Lane 3 :** HeLa whole cell lysate

**Lane 4 :** MCF7 whole cell lysate

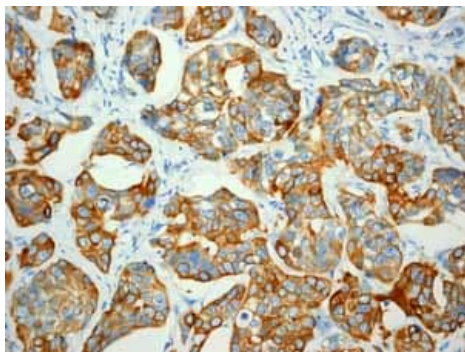
Lysates/proteins at 20 µg per lane.

**Predicted band size:** 51 kDa

**Observed band size:** 50 kDa

**Lanes 1 - 4:** Merged signal (red and green). Green - ab68459 observed at 50 kDa. Red - loading control, [ab8245](#), observed at 37 kDa.

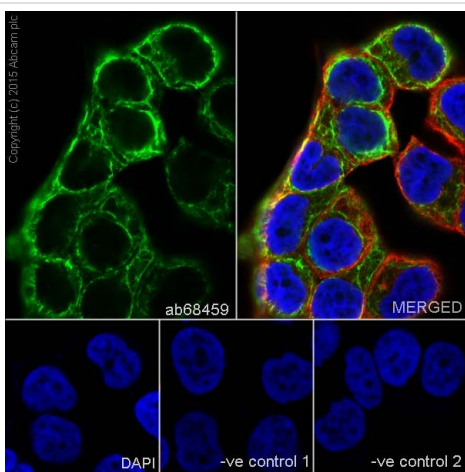
ab68459 was shown to specifically react with KRT7 (Cytokeratin 7) in wild-type A549 cells as signal was lost in KRT7 knockout cells. Wild-type and KRT7 knockout samples were subjected to SDS-PAGE. Ab68459 and [ab8245](#) (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1/5000 dilution 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.



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

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.



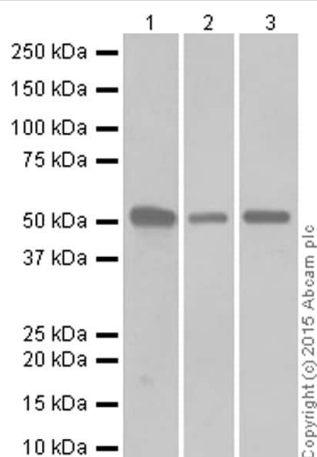
Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)

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<sup>®</sup> 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<sup>®</sup> 594-conjugated goat anti-mouse IgG (1/1000) were also used.

Control 1: primary antibody (1/100) and secondary antibody, [ab150120](#), an Alexa Fluor<sup>®</sup> 594-conjugated goat anti-mouse IgG (1/1000).

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

Alexa Fluor<sup>®</sup> 488 ([ab185048](#)) and Alexa Fluor<sup>®</sup> 647 ([ab192077](#)) conjugated versions are available for this clone.



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

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

**Lane 1** : HeLa whole cell lysate

**Lane 2** : SK-OV-3 whole cell lysate

**Lane 3** : T47D whole cell lysate

Lysates/proteins at 20 µg per lane.

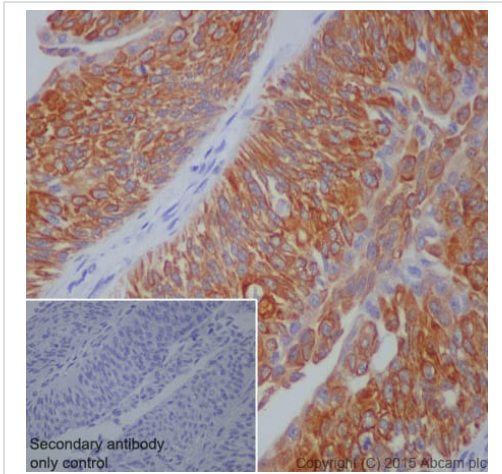
**Secondary**

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 51 kDa

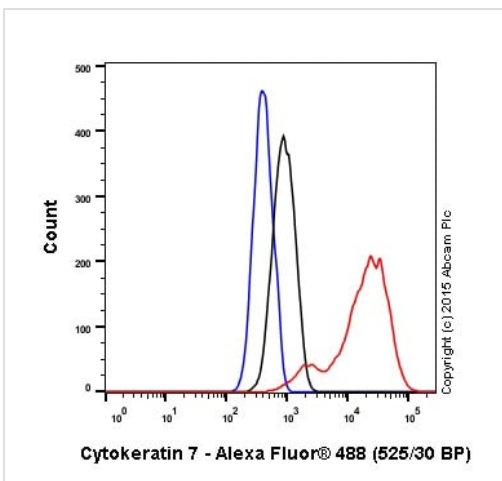
**Observed band size:** 51 kDa

Blocking and dilution buffer: 5% NFDm/TBST.



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.

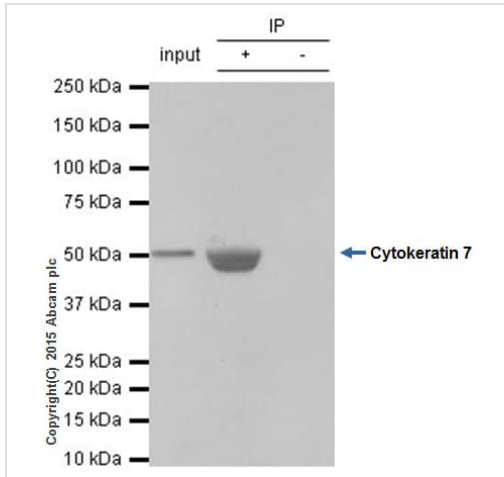
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR1619Y] - Cytoskeleton Marker (ab68459)



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

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



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)

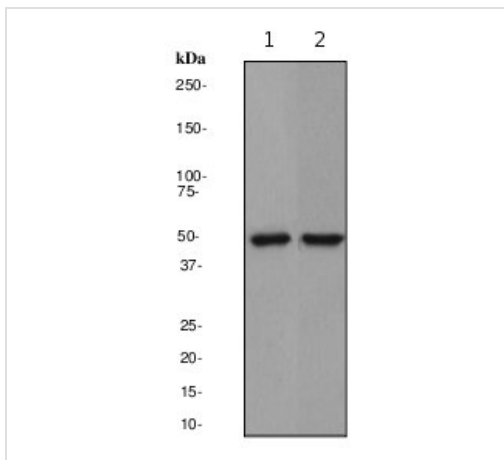
Lane 2 (+): ab68459 + HeLa whole cell lysate.

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.



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

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

**Lane 1** : HeLa cell lysate

**Lane 2** : T47D cell lysate

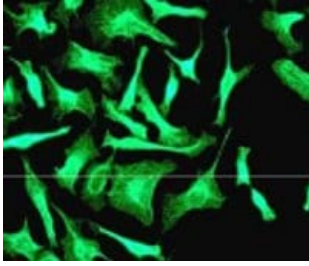
Lysates/proteins at 10 µg per lane.

### Secondary

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

**Predicted band size:** 51 kDa

**Observed band size:** 51 kDa



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

Immunocytochemistry/Immunofluorescence analysis of HeLa cells labelling Cytokeratin 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)

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.

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

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.

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

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)

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)

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)

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<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.

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

Equilibrium disassociation constant ( $K_D$ )

Learn more about  $K_D$

[Click here to learn more about  \$K\_D\$](#)

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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