Anti-Cytokeratin 7 antibody [EPR17078] - Cytoskeleton Marker ab181598

Overview

Product name: Anti-Cytokeratin 7 antibody [EPR17078] - Cytoskeleton Marker

Description: Rabbit monoclonal [EPR17078] to Cytokeratin 7 - Cytoskeleton Marker

Host species: Rabbit

Tested applications: Suitable for: Flow Cyt, IHC-Fr, WB, IHC-P, ICC/IF

Species reactivity: Reacts with: Mouse, Rat, Human

Immunogen: Recombinant fragment within Mouse Cytokeratin 7 aa 250 to the C-terminus. The exact sequence is proprietary.

Database link: Q9DCV7

Positive control: WB: Rat bladder and kidney, mouse lung, kidney and liver tissue lysates and HeLa cell lysate.

IHC-P: Human mammary gland, mouse liver and rat liver tissue.

IHC-F: Mouse kidney tissue.


General notes: Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

This product is a recombinant rabbit monoclonal antibody.

Properties

Form: Liquid


Storage buffer: Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol, 0.05% BSA

Purity: Protein A purified

Clonality: Monoclonal

Clone number: EPR17078

Isotype: IgG
**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 modifications**
Arg-20 is dimethylated, probably to asymmetric dimethylarginine.

**Cellular localization**
Cytoplasm.

**Applications**

Our Abpromise guarantee covers the use of **ab181598** in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
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<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>1/1500.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>★★★★★</td>
<td>1/8000.</td>
</tr>
<tr>
<td>WB</td>
<td></td>
<td>1/1000. Detects a band of approximately 51, 45, 42 kDa (predicted molecular weight: 51 kDa).</td>
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<tr>
<td>IHC-P</td>
<td>★★★★★</td>
<td>1/8000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.</td>
</tr>
<tr>
<td>ICC/IF</td>
<td></td>
<td>1/100.</td>
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Hepatic inflammation and abnormal intrahepatic bile ducts in the N-IF mouse

Immunofluorescence staining of bile ducts (CK-7, red), macrophages (F4/80, light blue) and nuclei (DAPI, blue) in livers of 8 week old N-IF and 24oβNOD control mice. Representative images from two independent experiments with a total of six mice are shown. Scale bars are 100 μm.

Cytokeratin is detected with ab181598 at 1/1500 dilution in formalin-fixed, paraffin-embedded mouse liver tissue. The secondary antibody is an Anti-Rabbit AlexaFluor®594 conjugate (red).

(From Figure 1D of Fransen-Pettersson, N. et al)

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.
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.

**All lanes**: Anti-Cytokeratin 7 antibody [EPR17078] - Cytoskeleton Marker (ab181598) at 1/50000 dilution

**Lane 1**: Rat bladder tissue  
**Lane 2**: Mouse lung tissue

Lysates/proteins at 10 µg per lane.

**Secondary**

**All lanes**: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size**: 51 kDa  
**Observed band size**: 52, 42 kDa

*why is the actual band size different from the predicted?*

Blocking/Dilution buffer: 5% NFDM/TBST.

~45 and 42kDa bands are supported by the literature and competitor’s products, which may be the isoforms.
Immunohistochemical analysis of formaldehyde-fixed, frozen section of mouse salivary gland tissue labeling Cytokeratin 7 with ab181598 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG AlexaFluor®660.

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.
Western blot - Anti-Cytokeratin 7 antibody [EPR17078] (ab181598)

- Anti-Cytokeratin 7 antibody [EPR17078] - Cytoskeleton Marker (ab181598) at 1/1000 dilution + Mouse liver lysate at 10 µg

Secondary

- Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 51 kDa

~45 and 42kDa bands are supported by the literature and competitor's products, which may be the isoforms.

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.

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.
**Western blot - Anti-Cytokeratin 7 antibody [EPR17078] (ab181598)**

**All lanes** : Anti-Cytokeratin 7 antibody [EPR17078] - Cytoskeleton Marker (ab181598) at 1/20000 dilution

**Lane 1** : HeLa (Human epithelial cells from cervix adenocarcinoma) cell lysate at 20 µg

**Lane 2** : Rat kidney tissue lysate at 10 µg

**Secondary**

**All lanes** : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size**: 51 kDa  
**Observed band size**: 51, 45, 42 kDa  
**why is the actual band size different from the predicted?**

Blocking/Dilution buffer: 5% NFDM/TBST.

~45 and 42kDa bands are supported by the literature and competitor’s products, which may be the isoforms.

**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.

**Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 7 antibody [EPR17078] (ab181598)**

Negative control  
Coomassie blue stained sample
Western blot - Anti-Cytokeratin 7 antibody [EPR17078] (ab181598)

Anti-Cytokeratin 7 antibody [EPR17078] - Cytoskeleton Marker (ab181598) at 1/5000 dilution + Mouse kidney lysate at 10 µg

Secondary
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 51 kDa
Observed band size: 51, 45, 42 kDa

why is the actual band size different from the predicted?

~45 and 42kDa bands are supported by the literature and competitor’s products, which may be the isoforms.

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