abcam

Product datasheet

Anti-pan Cytokeratin antibody [C-11] ab7753

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Overview

Product name	Anti-pan Cytokeratin antibody [C-11]
Description	Mouse monoclonal [C-11] to pan Cytokeratin
Host species	Mouse
Specificity	Cytokeratin peptides 4,5,6,8,10,13,18.
Tested applications	**Suitable for:** Flow Cyt, mIHC, WB
Species reactivity	**Reacts with:** Rat, Goat, Human, Common marmoset **Predicted to work with:** Mouse, Cow, Pig, a wide range of other species, Mammals, Bat
Immunogen	A keratin-enriched preparation from human epidermoid carcinoma cell line A431.
Positive control	ICC/IF: A549 and mouse hepatocytes (see reviews). WB: A431 cell lysate. Flow Cyt: HeLa cells.
General notes	This product was changed from ascites to tissue culture supernatant on 24th January 2018. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.097% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Purification notes	Purified from TCS. Purity >95% by SDS-PAGE.
Clonality	Monoclonal
Clone number	C-11
Isotype	IgG1

Applications

Our Abpromise guarantee covers the use of **ab7753** 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		Use a concentration of 0.5 µg/ml. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
mIHC		Use at an assay dependent concentration.
WB	★★★★☆	1/500 - 1/1000. 1/500 - 1/1000 (See Abreview).

Target

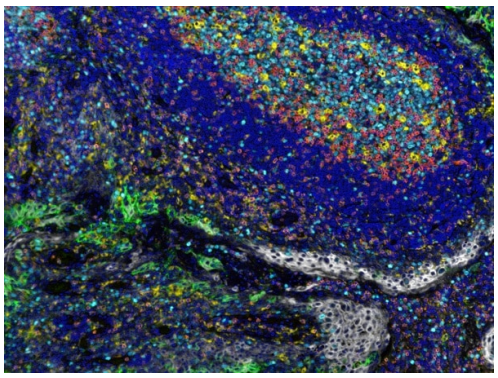
Relevance

Cytokeratins, a group comprising at least 29 different proteins, are characteristic of epithelial and trichocytic cells. Cytokeratins 1, 4, 5, 6, and 8 are members of the type II neutral to basic subfamily. Monoclonal anti cytokeratins are specific markers of epithelial cell differentiation and have been widely used as tools in tumor identification and classification. Monoclonal Anti Pan Cytokeratin (mixture) is a broadly reactive reagent, which recognizes epitopes present in most human epithelial tissues. It facilitates typing of normal, metaplastic and neoplastic cells. Synergy between the various components results in staining amplification. This enables identification of cells, which would otherwise be stained only marginally. The mixture may aid in the discrimination of carcinomas and nonepithelial tumors such as sarcomas, lymphomas and neural tumors. It is also useful in detecting micrometastases in lymph nodes, bone marrow and other tissues and for determining the origin of poorly differentiated tumors. There are two types of cytokeratins the acidic type I cytokeratins and the basic or neutral type II cytokeratins. Cytokeratins are usually found in pairs comprising a type I cytokeratin and a type II cytokeratin. Usually the type II cytokeratins are 8kD larger than their type I counterparts.

Cellular localization

Cytoplasmic

Images



Multiplex immunohistochemistry - Anti-pan Cytokeratin antibody [C-11] (ab7753)

Fluorescence multiplex immunohistochemical analysis of normal human tonsil tissue (formalin-fixed paraffin-embedded section).

Merged staining of anti-PD1 (ab237728; orange; Opal™520), anti-PDL1 (ab237726; green; Opal™540), anti-CD68 (ab192847; yellow; Opal™570), anti-CD3 (ab16669; red; Opal™620), anti-Ki67 (ab16667; light blue; Opal™650) and anti-PanCK (ab7753; grey; Opal™690).

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 7-color automation IHC kit (NEL821001KT, Akoya Biosciences®).

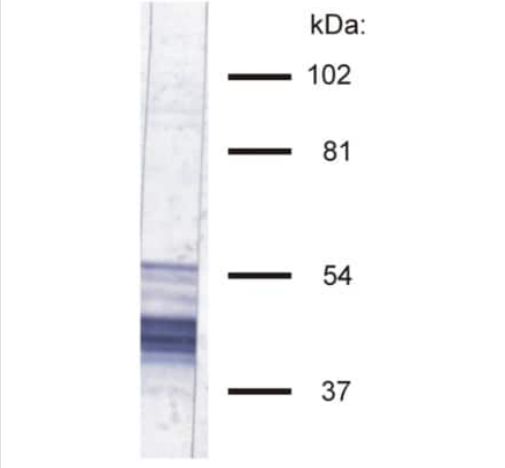
The section was incubated in six rounds of staining; in the order of

ab237728 (1/500 dilution), ab237726 (1/500 dilution), ab192847 (1/300 dilution), ab16669 (1/300 dilution), ab16667 (1/200 dilution) and ab7753 (1/200 dilution); each using a separate fluorescent tyramide signal amplification system.

Sodium citrate antigen retrieval (Leica ER1, pH6.0, 30 minutes) was used in between rounds of tyramide signal amplification to remove the antibody from the previous round, to avoid any cross-reactivity.

DAPI (dark blue) was used as a nuclear counter stain.

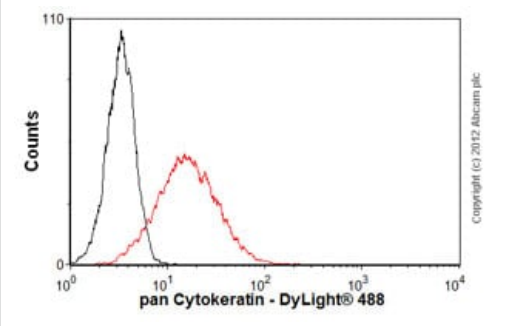
Microscopy and pseudocoloring of individual Opal™ dyes was performed using a Vectra Polaris.



Western blot - Anti-pan Cytokeratin antibody [C-11] (ab7753)

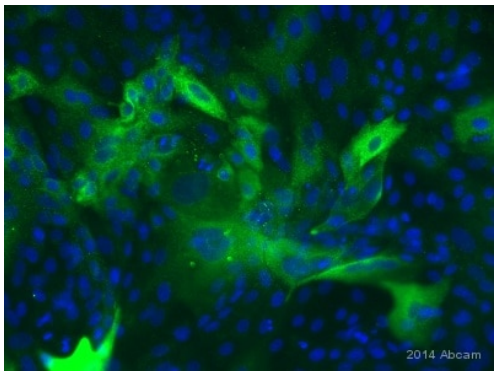
Anti-pan Cytokeratin antibody [C-11] (ab7753) + human A431 cell line on 10% gel.

This is a pan cytokeratin antibody and there are several cytokeratin bands between about 40 and 55 kDa. The identity of the particular cytokeratin that each band corresponds to has not been determined.



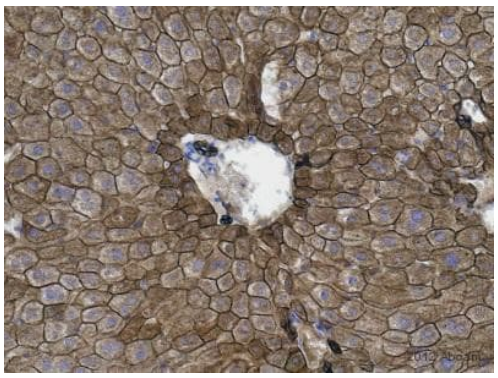
Flow Cytometry - Anti-pan Cytokeratin antibody [C-11] (ab7753)

Overlay histogram showing HeLa cells stained with ab7753 (red line). The cells were fixed with 4% paraformaldehyde (10 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 (ab7753, 1µg/1x10^6 cells) for 30 min at 22ºC. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22ºC. 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.



Immunocytochemistry/ Immunofluorescence - Anti-pan Cytokeratin antibody [C-11] (ab7753)

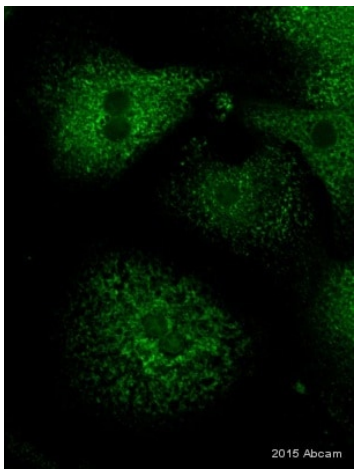
ab7753 staining pan Cytokeration in Cow Airway Epithelial cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with formaldehyde, permeabilized with 0.5% Triton X-100 and blocked with 1% serum for 15 minutes at 37°C. Samples were incubated with primary antibody (1/500 in PBS/1%BSA) for 1 hour at 37°C. A Biotin-conjugated Goat anti-mouse IgG polyclonal (1/50) was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cytokeratin antibody [C-11] (ab7753)

This image is courtesy of an Abreview submitted by Carl Hobbs

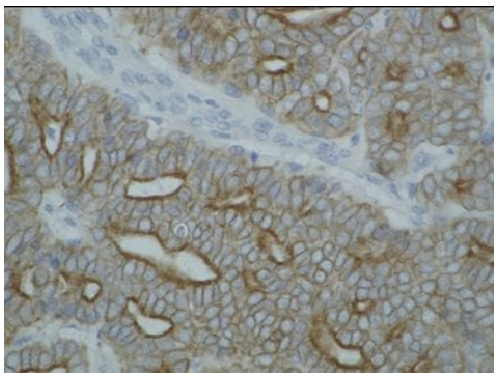
ab7753 staining pan Cytokeratin in Mouse liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 1% BSA for 10 minutes at 21°C; antigen retrieval was by heat mediation in a citric acid. Samples were incubated with primary antibody (1/250 in TBS/BSA/azide) for 2 hours at 21°C. A Biotin-conjugated Goat anti-mouse IgG polyclonal (1/250) was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-pan Cytokeratin antibody [C-11] (ab7753)

This image is courtesy of an anonymous Abreview

ab7753 staining pan Cytoketatin in mouse hepatocytes by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with paraformaldehyde and blocked with 0.5% BSA for 1 hour at 23°C. Samples were incubated with primary antibody (1/500) for 16 hours at 4°C. A Cy3®-conjugated goat anti-mouse IgG polyclonal (1/1000) was used as the secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-pan Cytokeratin antibody [C-11] (ab7753)

ab7753 staining pan Cytokeratin in guinae pig breast carcinoma tissue section by Immunohistochemistry (Formalin/PFA fixed paraffin-embedded sections).

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