

Product datasheet

Anti-Cytokeratin 18 antibody [C-04] ab668

★★★★★ 22 Abreviews 121 References 6 Images

Overview

Product name	Anti-Cytokeratin 18 antibody [C-04]
Description	Mouse monoclonal [C-04] to Cytokeratin 18
Host species	Mouse
Specificity	Human Cytokeratin
Tested applications	Suitable for: Flow Cyt (Intra), IHC-P
Species reactivity	Reacts with: Human, Mammals
Immunogen	Tissue, cells or virus corresponding to Cytokeratin 18. Cytoskeleton preparation of epidermal carcinoma cell line A431 Database link: P05783
Positive control	IHC-P: Human skin tissue. Flow Cyt (Intra): HCT 116 cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

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	Protein A purified
Purification notes	Purified from culture supernatant. Purity >95% by SDS-PAGE.
Clonality	Monoclonal
Clone number	C-04

Isotype

IgG1

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab668 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)		Use a concentration of 1 - 4 µg/ml. Also see PMID 18946470. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.
IHC-P	★★★★★ (11)	Use a concentration of 10 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Target

Function

Involved in the uptake of thrombin-antithrombin complexes by hepatic cells (By similarity). When phosphorylated, plays a role in filament reorganization. Involved in the delivery of mutated CFTR to the plasma membrane. Together with KRT8, is involved in interleukin-6 (IL-6)-mediated barrier protection.

Tissue specificity

Expressed in colon, placenta, liver and very weakly in exocervix. Increased expression observed in lymph nodes of breast carcinoma.

Involvement in disease

Defects in KRT18 are a cause of cirrhosis (CIRRH) [MIM:215600].

Sequence similarities

Belongs to the intermediate filament family.

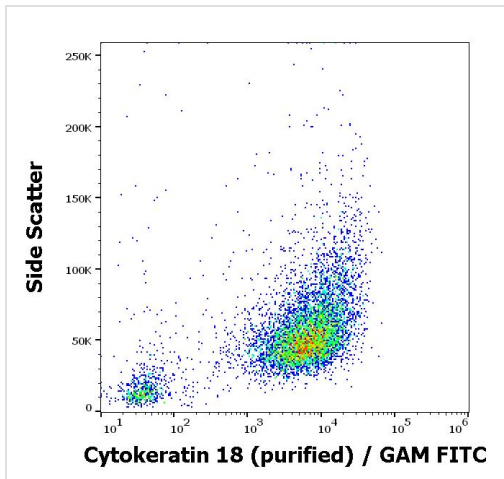
Post-translational modifications

Phosphorylation at Ser-34 increases during mitosis. Hyperphosphorylated at Ser-53 in diseased cirrhosis liver. Phosphorylation increases by IL-6.
Proteolytically cleaved by caspases during epithelial cell apoptosis. Cleavage occurs at Asp-238 by either caspase-3, caspase-6 or caspase-7.
O-glycosylated at multiple sites; glycans consist of single N-acetylglucosamine residues.

Cellular localization

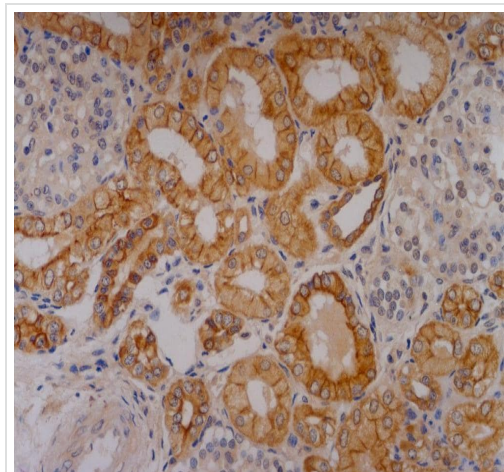
Cytoplasm > perinuclear region.

Images



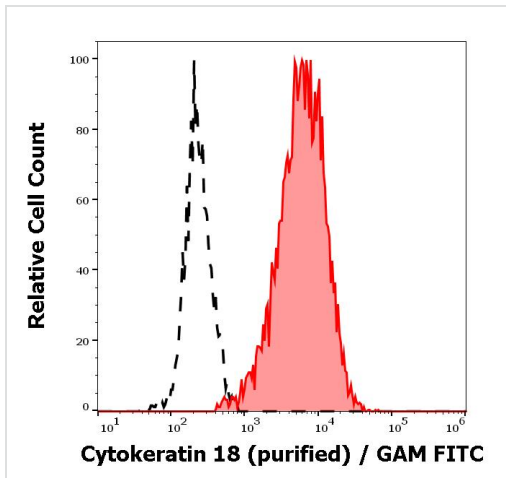
Flow cytometric pattern (intracellular staining) of HeLa cells (Human epithelial cell line from cervix adenocarcinoma cell suspension) stained with ab668 (0.6 µg/ml concentration)

Flow Cytometry (Intracellular) - Anti-Cytokeratin 18 antibody [C-04] (ab668)



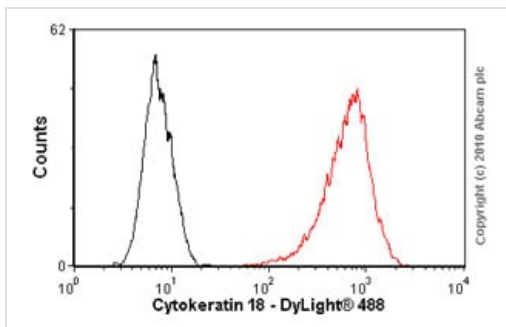
Immunohistochemistry (paraffin-embedded sections) analysis of human kidney tissue labelling cytokeatin-18 with ab668 at 10µg/ml concentration.

Immunohistochemistry paraffin embedded sections - Anti-Cytokeratin 18 antibody [C-04] (ab668)



Flow Cytometry (Intracellular) - Anti-Cytokeratin 18 antibody [C-04] (ab668)

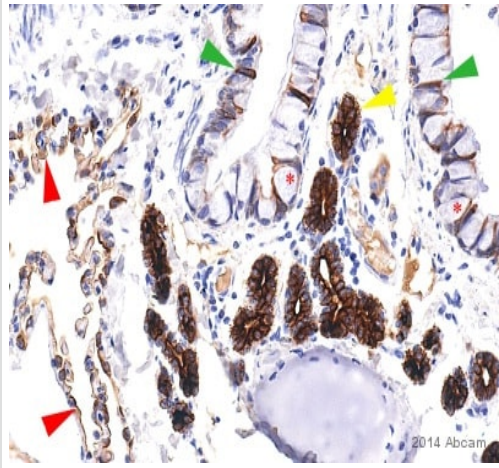
Intracellular flow cytometric analysis (intracellular staining) of HeLa cells (human epithelial cell line from cervix adenocarcinoma cell suspension) stained with 0.6 μg/ml ab668 (in red), and unstained HeLa cells (black).



Flow Cytometry (Intracellular) - Anti-Cytokeratin 18 antibody [C-04] (ab668)

Overlay histogram showing HCT 116 (Human colorectal carcinoma cell line) cells stained with ab668 (red line).

The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Triton 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 (ab668, 1 μg/1x10⁶ cells) for 30 min at 22°C. The secondary antibody used was DyLight[®] 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 2 μg/1x10⁶ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HCT 116 cells fixed with 4% paraformaldehyde/permeabilized in 0.1% PBS-Triton used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 18 antibody [C-04] (ab668)

This image is courtesy of an Abreview submitted by Carl Hobbs

ab668 staining Cytokeratin 18 in cat lung tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections).

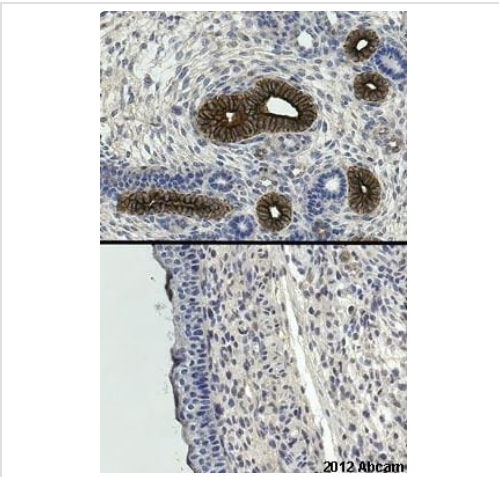
Tissue was fixed with formaldehyde and blocked with 1% BSA for 10 minutes at 21°C; antigen retrieval was by heat mediation in citric acid. Samples were incubated with primary antibody (1/500 in TBS/BSA/azide) for 2 hours at 21°C. A biotin-conjugated goat anti-mouse IgG polyclonal (1/200) was used as the secondary antibody.

Coloured arrowheads indicate positivity.

Good immunolabeling of bronchial tree epithelia (green), alveolar lining epithelium (red).

Goblet cells are negative (asterisk).

Heavily stained structures are submucosal mucous glands.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 18 antibody [C-04] (ab668)

This image is courtesy of an Abreview submitted by Carl Hobbs

ab668 staining cytokeratin 18 in mouse epithelium 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 citrate buffer. Samples were incubated with primary antibody (1/500 in TBS/BSA/azide) for 2 hours at 21°C. A biotin-conjugated Goat anti-mouse IgG polyclonal (1/200) was used as the secondary antibody.

Composite image of d14 embryo shows developing epithelia.

Upper image: positive simple epithelium of renal tubules

Lower image: negative stratified epithelium of epidermis

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

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours

- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors