

Product datasheet

Anti-Cytokeratin 5 + 8 antibody [RCK102] ab9005

★★★★★ [1 Abreviews](#) [9 References](#) [5 Images](#)

Overview

| | |
|----------------------------|---|
| Product name | Anti-Cytokeratin 5 + 8 antibody [RCK102] |
| Description | Mouse monoclonal [RCK102] to Cytokeratin 5 + 8 |
| Host species | Mouse |
| Specificity | This antibody reacts with cytokeratin 5 and cytokeratin 8, recognizing virtually all epithelial tissues and carcinomas. |
| Tested applications | Suitable for: Flow Cyt, IHC-Fr, IHC-P |
| Species reactivity | Reacts with: Human |
| Immunogen | Tissue, cells or virus corresponding to Human Cytokeratin 5 + 8. Human lung cancer cell line (MR21). |

General notes

Cytokeratins are a subfamily of intermediate filament proteins and are characterized by a remarkable biochemical diversity, represented in human epithelial tissues by at least 20 different polypeptides. They range in molecular weight between 40 kDa and 68 kDa and isoelectric pH between 4.9 – 7.8. The individual human cytokeratins are designated 1 to 20. The various epithelia in the human body usually express cytokeratins which are not only characteristic of the type of epithelium, but also related to the degree of maturation or differentiation within an epithelium. Cytokeratin subtype expression patterns are used to an increasing extent in the distinction of different types of epithelial malignancies. The cytokeratin antibodies are not only of assistance in the differential diagnosis of tumors using immunohistochemistry on tissue sections, but are also a useful tool in cytopathology and flow cytometric assays.

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.

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

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

Preservative: 0.09% Sodium azide

Constituent: PBS

Purity

Protein G purified

Primary antibody notes

Cytokeratins are a subfamily of intermediate filament proteins and are characterized by a remarkable biochemical diversity, represented in human epithelial tissues by at least 20 different polypeptides. They range in molecular weight between 40 kDa and 68 kDa and isoelectric pH between 4.9 – 7.8. The individual human cytokeratins are designated 1 to 20. The various epithelia in the human body usually express cytokeratins which are not only characteristic of the type of epithelium, but also related to the degree of maturation or differentiation within an epithelium. Cytokeratin subtype expression patterns are used to an increasing extent in the distinction of different types of epithelial malignancies. The cytokeratin antibodies are not only of assistance in the differential diagnosis of tumors using immunohistochemistry on tissue sections, but are also a useful tool in cytopathology and flow cytometric assays.

Clonality

Monoclonal

Clone number

RCK102

Myeloma

Sp2/0

Isotype

IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab9005 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 | | 1/100 - 1/200. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody. |
| IHC-Fr | | Use at an assay dependent concentration. |
| IHC-P | | Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. |

Target

Relevance

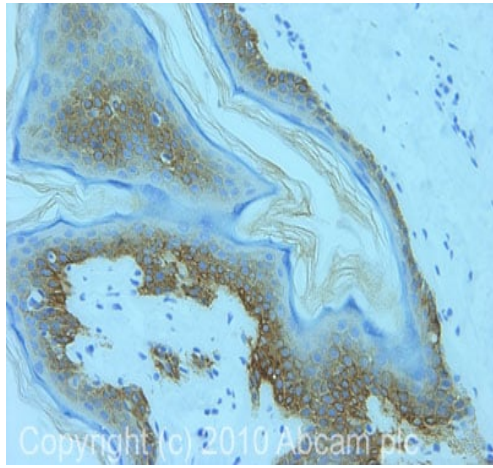
Cytokeratin 5 is a member of the keratin gene family. The type II cytokeratins consist of basic or neutral proteins which are arranged in pairs of heterotypic keratin chains coexpressed during differentiation of simple and stratified epithelial tissues. This type II cytokeratin is specifically expressed in the basal layer of the epidermis with family member KRT14. Mutations in these genes have been associated with a complex of diseases termed epidermolysis bullosa simplex. Cytokeratin 8 is a member of the type II keratin family clustered on the long arm of chromosome 12. Type I and type II keratins heteropolymerize to form intermediate-sized filaments in the cytoplasm of epithelial cells. The product of this gene typically dimerizes with keratin 18 to form an intermediate filament in simple single-layered epithelial cells. This protein plays a role in

maintaining cellular structural integrity and also functions in signal transduction and cellular differentiation. Mutations in this gene cause cryptogenic cirrhosis.

Cellular localization

Cell Membrane and Cytoplasmic

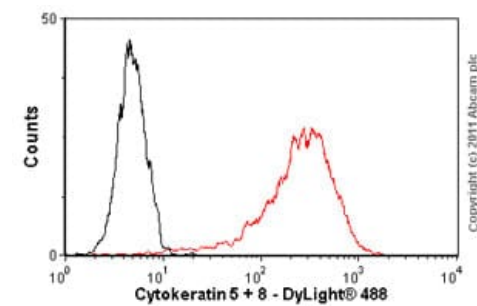
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 + 8 antibody [RCK102] (ab9005)

IHC image of ab9005 staining in human skin formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab9005, 1 µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

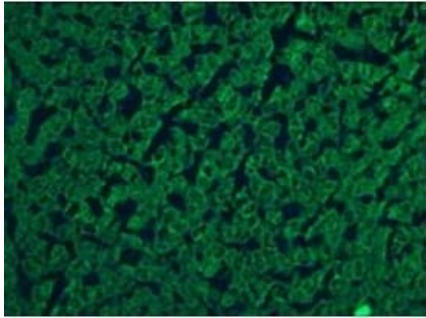
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry - Anti-Cytokeratin 5 + 8 antibody [RCK102] (ab9005)

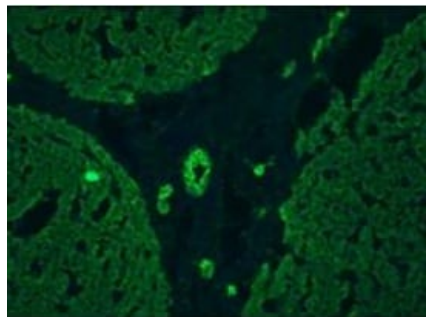
Overlay histogram showing A431 cells stained with ab9005 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Triton for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab9005, 1/100 dilution) 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 A431 cells fixed with 100% methanol (5 min)/permeabilized in 0.1% PBS-Triton used under the same conditions.



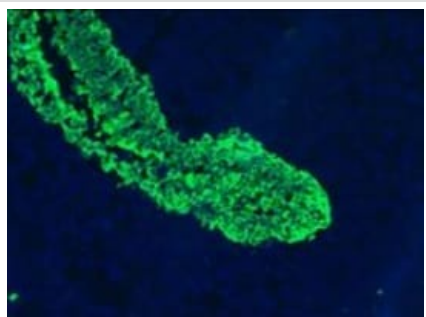
Immunohistochemistry analysis on frozen sections of human liver hepatocytes labeling Cytokeratin 5 + 8 using ab9005.

Immunohistochemistry (Frozen sections) - Anti-Cytokeratin 5 + 8 antibody [RCK102] (ab9005)



Immunohistochemistry analysis on frozen sections of human liver hepatocytes and bile ducts labeling Cytokeratin 5 + 8 using ab9005.

Immunohistochemistry (Frozen sections) - Anti-Cytokeratin 5 + 8 antibody [RCK102] (ab9005)



Immunohistochemistry analysis on frozen sections of human urinary bladder epithelium labeling Cytokeratin 5 + 8 using ab9005.

Immunohistochemistry (Frozen sections) - Anti-Cytokeratin 5 + 8 antibody [RCK102] (ab9005)

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