

Product datasheet

Anti-Cytokeratin 8 + 18 + 19 antibody [2A4] ab41825

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Overview

Product name	Anti-Cytokeratin 8 + 18 + 19 antibody [2A4]
Description	Mouse monoclonal [2A4] to Cytokeratin 8 + 18 + 19
Host species	Mouse
Tested applications	Suitable for: WB, IHC-Fr, IHC-P, ICC/IF, Flow Cyt
Species reactivity	Reacts with: Rat, Human, Pig
Immunogen	Cytokeratins isolated from cultured pig kidney epithelial cells.
General notes	Balb/c spleen cells used to produce hybridoma.

This antibody recognizes cytokeratins 8, 18 and 19 typical for simple epithelial cells.

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 long term.
Storage buffer	pH: 7.3 Preservative: 0.1% Sodium azide Constituents: PBS, 1% BSA
Purity	Protein G purified
Primary antibody notes	This antibody recognizes cytokeratins 8, 18 and 19 typical for simple epithelial cells.
Clonality	Monoclonal
Clone number	2A4
Isotype	IgG1

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab41825 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
WB		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration.
IHC-P		1/100. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF	★★★★★ (1)	Use at an assay dependent concentration.
Flow Cyt		Use 1µg for 10 ⁶ cells. ab91353 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Target

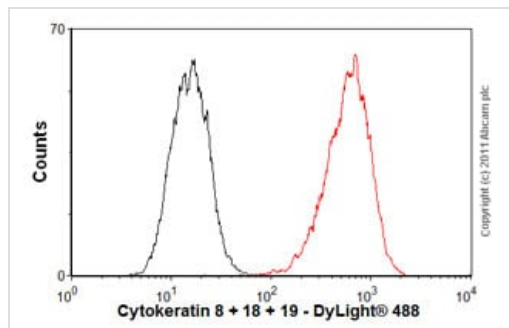
Relevance

The cytokeratins are intermediate filament proteins responsible for the structural integrity of epithelial cells. Keratin proteins belong to 2 families: acidic (or type I) and basic (or type II). The acidic keratins are coded by genes KRT9 to 19, the basic keratins by genes KRT1 to 8. Cytokeratins 8, 18 and 19 are encoded by the genes KRT8, 18 and 19 respectively. Type I and II keratins are usually coordinately synthesized in preferential pairs so that at least 1 member of each family is expressed in each epithelial cell, in equal proportions. Cytokeratin 8, together with its filament partner cytokeratin 18, are perhaps the most commonly found members of the intermediate filament gene family. They are expressed in single layer epithelial tissues. KRT8/18 mutations may predispose to liver disease, including cryptogenic cirrhosis, in humans. Unlike its related family members, cytokeratin 19 (the smallest known acidic cytokeratin at 40kDa) is not paired with a basic cytokeratin in epithelial cells. It is specifically expressed in the periderm, the transiently superficial layer that envelopes the developing epidermis. It is often expressed in cultured epithelial cells and in some carcinomas.

Cellular localization

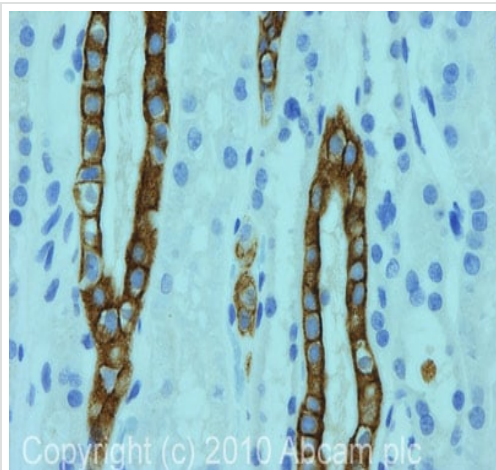
Cytoplasmic

Images



Flow Cytometry - Anti-Cytokeratin 8 + 18 + 19 antibody [2A4] (ab41825)

Overlay histogram showing MCF7 cells stained with ab41825 (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. The cells were then incubated with the antibody (ab41825, 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 MCF7 cells fixed with 4% paraformaldehyde (10 min)/permeabilized in 0.1% PBS-Tween used under the same conditions.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 8 + 18 + 19 antibody [2A4] (ab41825)

IHC image of ab41825 staining in human kidney formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ 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 ab41825, 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.

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