abcam

ab20208

Anti-Cytokeratin 10 antibody [LH2]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Tissue preparation containing KRT10 protein. The exact immunogen used to generate this antibody is proprietary information. Database link P13645
Clone number	LH2
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1 µg for 10^6 Cells
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

IHC-P

Tested

Species	Human
Dilution info	0.1-0.2 µg/mL
Notes	LH2 does not react with any tumour tissue regardless of histological classification. LH2 is monospecific and has high affinity.

Target data

See full target information KRT10

Function	Plays a role in the establishment of the epidermal barrier on plantar skin (By similarity). Involved in the maintenance of cell layer development and keratin filament bundles in suprabasal cells of the epithelium (By similarity). (Microbial infection) Acts as a mediator of S.aureus adherence to desquamated nasal epithelial cells via clfB, and hence may play a role in nasal colonization. (Microbial infection) Binds S.pneumoniae PsrP, mediating adherence of the bacteria to lung cell lines. Reduction of levels of KRT10 keratin decrease adherence, overexpression increases adherence. Neither protein has to be glycosylated for the interaction to occur.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Cytokeratin 10 also known as CK10 K10 or KRT10 is a type I keratin protein with a mass of about 59 kDa. Researchers recognize it as an important structural protein

	found mainly in the suprabasal layers of the epidermis where it contributes to maintaining the integrity and function of the skin barrier. Cytokeratin 10 is also expressed in other stratified squamous epithelia. Scientists use antibodies against cytokeratin 10 sometimes called 'lh2' and 'cytokeratin 10 anticuerpos' as neomarkers for identifying specific cell types in tissue studies.
Biological function summary	Keratin proteins like cytokeratin 10 provide mechanical stability to cells and tissues. Cytokeratin 10 forms a heterodimer with keratin 1 (KRT1) creating a complex that plays a critical role in the cytoskeleton of keratinocytes. This structure supports cellular resilience against mechanical stresses helping maintain the integrity of epithelial tissues. Keratin 10 function is essential for normal skin development and differentiation highlighting its significance in epidermal morphogenesis.
Pathways	Cytokeratin 10 is integral to the epidermal differentiation complex. This pathway involves many regulatory proteins and is essential for proper skin formation and repair. Cytokeratin 10 together with KRT1 contributes to the terminal differentiation of keratinocytes. Another key pathway is the cornification process where cytokeratin 10 helps form the protective outer layer of the skin. These biological roles place cytokeratin 10 at an essential point in maintaining skin homeostasis and function.
Associated diseases and disorders	Abnormal expression or mutation of cytokeratin 10 leads to skin conditions like epidermolytic hyperkeratosis. This rare inherited disorder results in blistering and thickening of the skin. Cytokeratin 10 mutations often appear alongside changes in KRT1 due to their forming a functional pair indicating their collaborative role in disease manifestation. Additionally altered cytokeratin 10 expression can be associated with psoriasis as disrupted keratinocyte differentiation contributes to this inflammatory skin disease. Understanding these associations helps in studying and developing treatment strategies for skin disorders.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

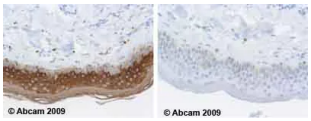
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

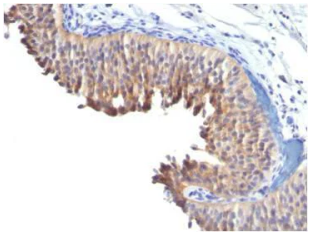
3 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 10 antibody [LH2] (ab20208)

Cytokeratin 10 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Cytokeratin 10 antibody

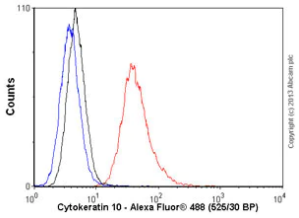
ab20208 staining Human normal skin. Staining is localised to cytoplasmic compartment.
Left panel: with primary antibody at 1 ug/ml. Right panel: isotype control.
Sections were stained using an automated system DAKO Autostainer Plus , at room temperature: sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffers EDTA pH 9.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 10 antibody [LH2] (ab20208)

Cytokeratin 10 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-Cytokeratin 10 antibody

Immunohistochemical analysis of formalin fixed paraffin embedded human Bladder carcinoma labelling cytokeratin 10 with ab20208 at 0.1 ug/ml.



Flow Cytometry - Anti-Cytokeratin 10 antibody [LH2] (ab20208)

Cytokeratin 10 Flow Cytometry staining using mouse Anti-Cytokeratin 10 antibody

Overlay histogram showing A431 cells stained with ab20208 (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 followed by the antibody (ab20208, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (ab150113) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [ICIGG1] (ab91353, 1µg/1x10^6 cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.