abcam

ab230801

Anti-Cytokeratin 10 antibody

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Polyclonal
Immunogen	Synthetic Peptide within Human KRT10 aa 150-200 conjugated to Keyhole Limpet Haemocyanin. The exact immunogen used to generate this antibody is proprietary information. Database link P13645
Purification technique	Affinity purification Protein A
Concentration	0.25 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/100 - 1/200
Notes	Perform heat-mediated antigen retrieval before commencing with IHC staining protocol.

Predicted

Species	Mouse, Rat, Cow, Dog
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Predicted

Species	Mouse, Rat, Cow, Dog
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat, Cow, Dog
Dilution info	-
Notes	-

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

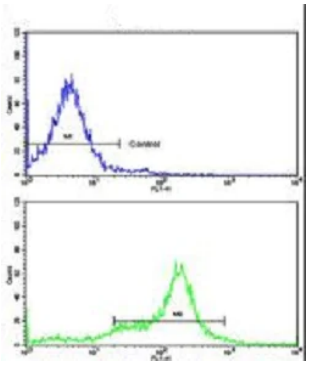
We do not recommend this combination. It is not covered by our product promise.

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.

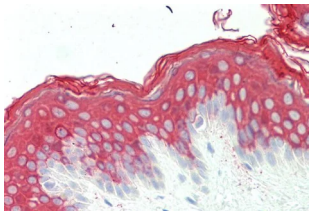
3 product images



Flow Cytometry (Intracellular) - Anti-Cytokeratin 10 antibody (ab230801)

Cytokeratin 10 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 10 antibody

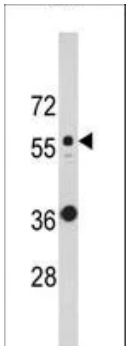
Intracellular flow cytometric analysis of HEK-293 (human epithelial cell line from embryonic kidney) cells labeling Cytokeratin 10 with ab230801 at 1/10 dilution (green) compared with a negative control (blue).
FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 10 antibody (ab230801)

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

Formalin-fixed, paraffin-embedded human skin tissue stained for Cytokeratin 10 with ab230801 at 1/100 dilution in immunohistochemical analysis.



Western blot - Anti-Cytokeratin 10 antibody (ab230801)

All lanes:
Western blot - Anti-Cytokeratin 10 antibody (ab230801) at 1/1000 dilution

All lanes:
HEK-293 (human epithelial cell line from embryonic kidney) cell lysate at 35 µg

Developed using the ECL technique.

Predicted band size: 59 kDa

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