abcam

ab52635

Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker

Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) is a rabbit monoclonal antibody detecting Cytokeratin 5 in **Western Blot, Flow Cytometry (Intra), IHC-P, ICC/IF**. Suitable for **Human, Mouse, Rat**.

- Clone EP1601Y is the most cited clone to Cytokeratin 5
- Biophysical QC for unrivalled batch-batch consistency
- Over 160 publications
- Trusted since 2007

Goat version of this clone also available as ab321868. Same clone, same staining pattern, different species antibody backbone.
Learn more about chimeric antibodies

Lab Essentials | Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EP1601Y
Purification technique	Affinity purification Protein A
Specificity	Mouse reactivity is based on IHC (positive tissues: Liver, lung, brain and skin). However, WB was negative for Mouse brain, heart, kidney and spleen. There is background staining in mouse and rat islet.
Concentration	0.118 mg/mL The concentration of this product may be batch-dependent

Batch concentration finder →

Reactivity data

WB

Tested

Species	Mouse
Dilution info	1/10000
Notes	-

Species	Rat
Dilution info	1/10000
Notes	-

Species	Human
Dilution info	1/10000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/20
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/200
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/200
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/200
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information KRT5

Function	Required for the formation of keratin intermediate filaments in the basal epidermis and maintenance of the skin barrier in response to mechanical stress (By similarity). Regulates the recruitment of Langerhans cells to the epidermis, potentially by modulation of the abundance of macrophage chemotactic cytokines, macrophage inflammatory cytokines and CTNND1 localization in keratinocytes (By similarity).

Storage

Shipped at conditions	Conditional Ambient
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

Notes

Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) was developed by Abcam using patented rabbit monoclonal antibody technology and is validated for use in Flow Cyt (Intra), ICC/IF, IHC-P and WB.

Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) was first used in a scientific publication in 1977 and has been cited over 163 times in peer reviewed journals. It's performance in IHC in mouse samples is trusted by the scientific community.

Abcam's high quality manufacturing and validation processes ensure Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) has high sensitivity and specificity alongside high lot-to-lot consistency and reproducibility.

Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) has 10 independent reviews from customers.

Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) specifically detects Cytokeratin 5 (UniProt ID: P13647; Molecular weight: 63kDa) and is sold in 100 µL and 1 mL selling sizes.

Conjugation-ready, carrier free format available for antibody clone EP1601Y - ab214586.

Antibody clone EP1601Y is also available pre-conjugated to a variety of labels for your convenience - Alexa Fluor® 488, Alexa Fluor® 647, HRP, APC, PE (ab193894, ab193895, ab193896, ab224984, ab224985).

Cytokeratin 5 (CK5) is a key diagnostic marker used to identify and classify certain cancers, such as basal-like breast carcinomas and squamous cell carcinomas. Its expression is linked to high-grade tumors and poorer prognosis in various cancers, including urothelial and colorectal cancers.

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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

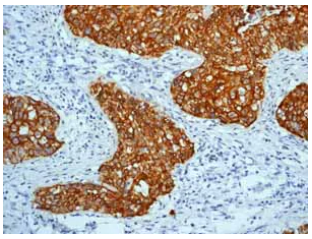
We do not recommend this combination. It is not covered by our product promise.

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.

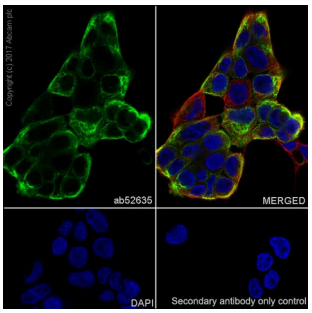
20 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

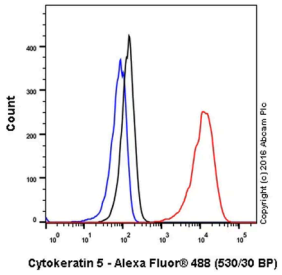
Unpurified ab52635 showing positive staining in squamous cell cervical carcinoma tissue.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 5 antibody

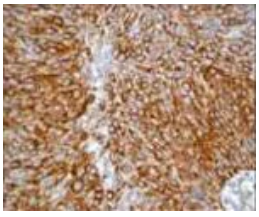
Immunocytochemistry/ Immunofluorescence analysis of A431 (Human epidermoid carcinoma epithelial cell) cells labeling Cytokeratin 6 with Purified ab52635 at 1/100 dilution. Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1/200 (2.5 µg/ml). ab150077 Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1/1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Flow Cytometry (Intracellular) staining using rabbit Anti-Cytokeratin 5 antibody

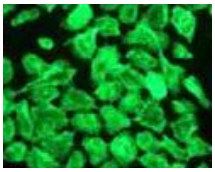
Intracellular Flow Cytometry analysis of A431 (human epidermoid carcinoma) cells labelling Cytokeratin 5 with purified ab52635 at 1/20 (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. An Alexa Fluorr®488-conjugated goat anti-rabbit IgG (1/2000) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

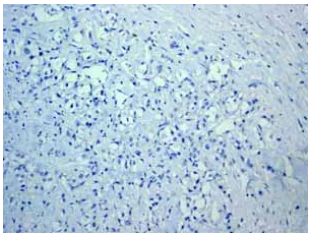
Human transitional urinary bladder carcinoma stained with unpurified ab52635 at 1/100 - 1/250 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Cytokeratin 5 antibody

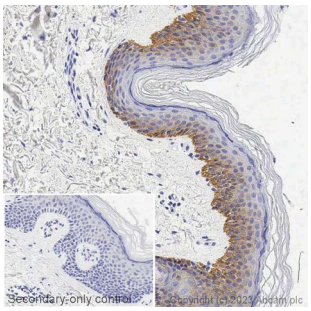
A431 cells stained with unpurified ab52635 at 1/100 - 1/250



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

Unpurified ab52635 showing negative staining in ductal breast carcinoma tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

IHC image of Cytokeratin 5 staining in a section of formalin-fixed paraffin-embedded normal human skin* performed on a Leica Biosystems BOND® RX instrument. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20mins. The section was then incubated with ab52635, 0.1ug/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. The inset secondary-only control image is taken from an identical assay without primary antibody. 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. *Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

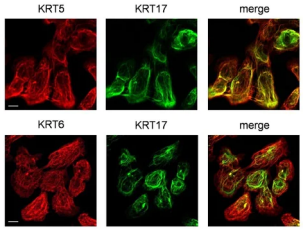
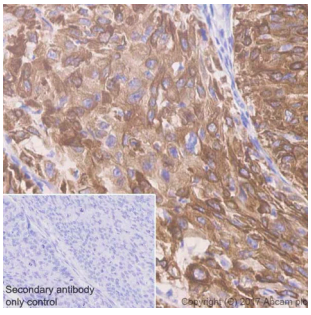


Image from Khanom R. et al PLoS One. 2016 Aug 11;11(8):e0161163. doi: 10.1371/journal.pone.0161163. eCollection 2016.

Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

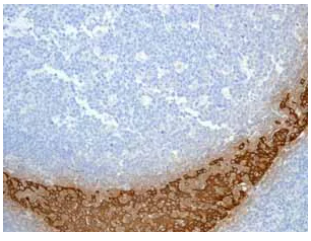
Colocalization of KRT5, KRT6 and KRT17 in HSC3 cells
Immunocytochemistry in HSC3 (human oral squamous carcinoma cell line) cells. Scale bar, 10 µm.

(Taken from Figure S3 of Khanom et al)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

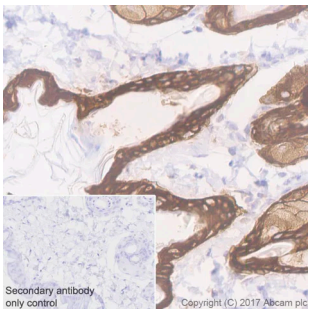
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human cervical carcinoma tissue sections labeling Cytokeratin 5 with Purified ab52635 at 1:200 dilution. Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

Unpurified ab52635 showing positive staining in normal tonsil squamous cells tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

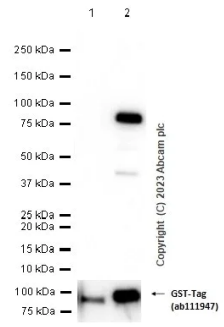
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of mouse skin tissue sections labeling Cytokeratin 5 with Purified ab52635 at 1:200 dilution. Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Cytokeratin 5 antibody

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat skin tissue sections labeling Cytokeratin 5 with Purified ab52635 at 1:200 dilution. Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.



Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Blocking buffer: 5% NFDM /TBST.
All lanes:
Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) at 1/1000 dilution

Lane 1:
N-GST tagged full-length recombinant human Cytokeratin 6A protein at 10 ng

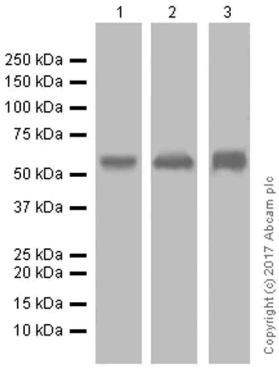
Lane 2:
N-GST tagged full-length recombinant human Cytokeratin 5 protein at 10 ng

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 87 kDa

Exposure time: 10s



Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Western blot staining using rabbit Anti-Cytokeratin 5 antibody

Blocking and diluting buffer: 5% NFDM/TBST.
The lysates were prepared in 1%SDS Hot lysis method.

All lanes:
Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) at 1/10000 dilution

Lane 1:
Human fetal skin lysates at 20 µg

Lane 2:
Rat skin lysates at 20 µg

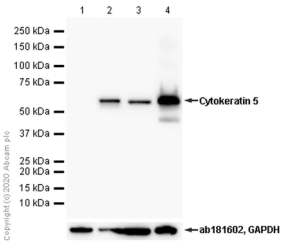
Lane 3:
Mouse skin lysates at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 62 kDa

Observed band size: 62 kDa



Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

The lysates were prepared in 1%SDS Hot lysis method.
Observed MW: 62kDa

Blocking/diluting buffer and concentration: 5% NFDM/TBST

All lanes:
Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) at 1/1000 dilution

Lane 1:
Human skin lysates prepared in RIPA lysis method at 20 µg

Lane 2:
Human skin lysates prepared in 1%SDS Hot lysis method at 20 µg

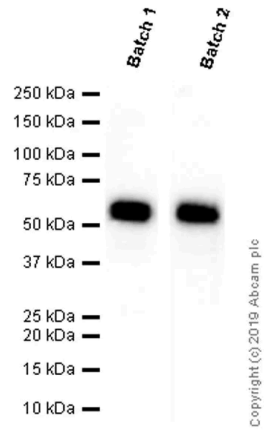
Lane 3:
Mouse skin lysates prepared in RIPA lysis method at 20 µg

Lane 4:
Mouse skin lysates prepared in 1%SDS Hot lysis method at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Predicted band size: 62 kDa

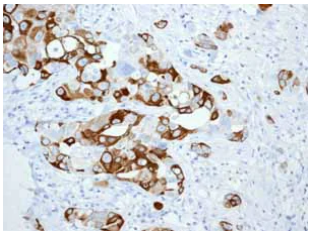


Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Cytokeratin 5 Western blot staining using rabbit Anti-Cytokeratin 5 antibody

Different batches of ab52635 were tested on Rat skin lysate at 1.0 µg/ml. 15 µg of lysate was loaded in each lane. Bands observed at 62 kDa.
All lanes:
Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Predicted band size: 62 kDa



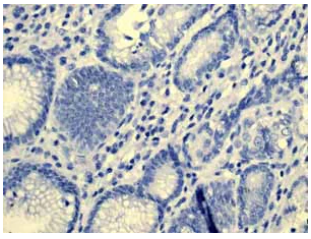
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Unpurified ab52635 showing positive staining in basal cell breast carcinoma tissue.



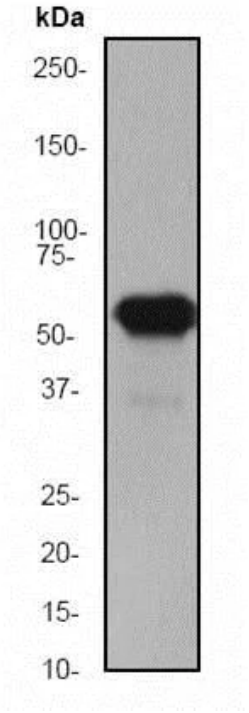
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Unpurified ab52635 showing positive staining in squamous cell lung carcinoma tissue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Unpurified ab52635 showing negative staining in stomach adenocarcinoma tissue.



Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

All lanes:
Western blot - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) at 1/10000 dilution

All lanes:
A431 cell lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 62 kDa

Observed band size: 62 kDa

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