

## Product datasheet

# Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker ab52635

Recombinant RabMAb

★★★★★ [10 Abreviews](#) [139 References](#) [21 Images](#)

### Overview

<b>Product name</b>	Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker
<b>Description</b>	Rabbit monoclonal [EP1601Y] to Cytokeratin 5 - Cytoskeleton Marker
<b>Host species</b>	Rabbit
<b>Specificity</b>	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.
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), ICC/IF, WB, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>Positive control</b>	WB: A431 cell, human fetal skin, rat skin and mouse skin lysates. IHC-P: Squamous cell cervical, squamous cell lung and basal cell breast carcinoma tissue. Human transitional urinary bladder carcinoma tissue. Normal tonsil squamous, human cervical carcinoma, mouse skin and rat skin tissues. Human normal skin tissue. Flow Cyt (intra) and ICC/IF: A431 cells. ICC/IF: A431 cells.
<b>General notes</b>	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.01% Sodium azide

	Constituents: 59% PBS, 40% Glycerol, 0.05% BSA
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EP1601Y
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab52635 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 (Intra)		1/20.
ICC/IF		1/100.
WB	★★★★★ (2)	1/10000. Detects a band of approximately 62 kDa (predicted molecular weight: 62 kDa).
IHC-P	★★★★★ (4)	1/200. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

## Target

### Involvement in disease

Defects in KRT5 are a cause of epidermolysis bullosa simplex Dowling-Meara type (DM-EBS) [MIM:131760]. DM-EBS is a severe form of intraepidermal epidermolysis bullosa characterized by generalized herpetiform blistering, milia formation, dystrophic nails, and mucous membrane involvement.

Defects in KRT5 are the cause of epidermolysis bullosa simplex with migratory circinate erythema (EBSMCE) [MIM:609352]. EBSMCE is a form of intraepidermal epidermolysis bullosa characterized by unusual migratory circinate erythema. Skin lesions appear from birth primarily on the hands, feet, and legs but spare nails, ocular epithelia and mucosae. Lesions heal with brown pigmentation but no scarring. Electron microscopy findings are distinct from those seen in the DM-EBS, with no evidence of tonofilament clumping.

Defects in KRT5 are a cause of epidermolysis bullosa simplex Weber-Cockayne type (WC-EBS) [MIM:131800]. WC-EBS is a form of intraepidermal epidermolysis bullosa characterized by blistering limited to palmar and plantar areas of the skin.

Defects in KRT5 are a cause of epidermolysis bullosa simplex Koebner type (K-EBS) [MIM:131900]. K-EBS is a form of intraepidermal epidermolysis bullosa characterized by generalized skin blistering. The phenotype is not fundamentally distinct from the Dowling-Meara type, although it is less severe.

Defects in KRT5 are the cause of epidermolysis bullosa simplex with mottled pigmentation (MP-EBS) [MIM:131960]. MP-EBS is a form of intraepidermal epidermolysis bullosa characterized by blistering at acral sites and 'mottled' pigmentation of the trunk and proximal extremities with hyper- and hypopigmentation macules.

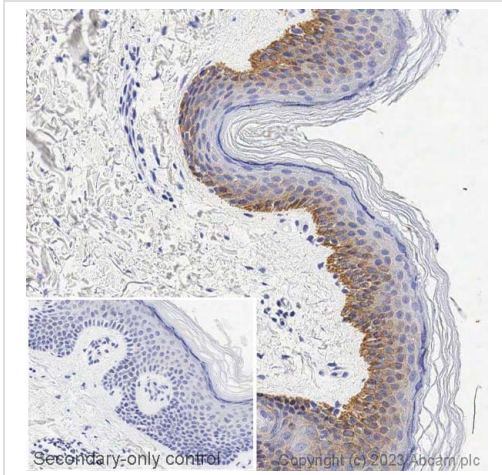
Defects in KRT5 are the cause of Dowling-Degos disease (DDD) [MIM:179850]; also known as Dowling-Degos-Kitamura disease or reticulate acropigmentation of Kitamura. DDD is an

autosomal dominant genodermatosis. Affected individuals develop a postpubertal reticulate hyperpigmentation that is progressive and disfiguring, and small hyperkeratotic dark brown papules that affect mainly the flexures and great skin folds. Patients usually show no abnormalities of the hair or nails.

## Sequence similarities

Belongs to the intermediate filament family.

## Images

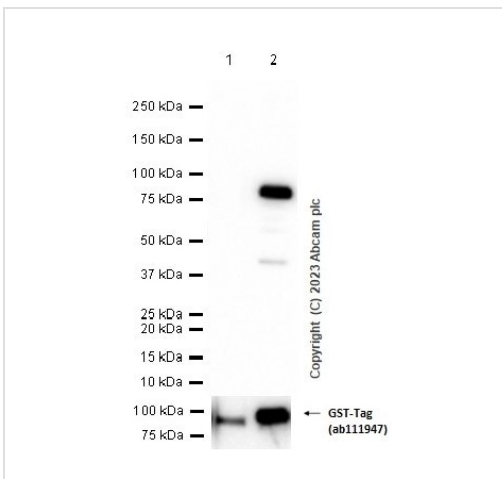


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

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*



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

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

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

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

### Secondary

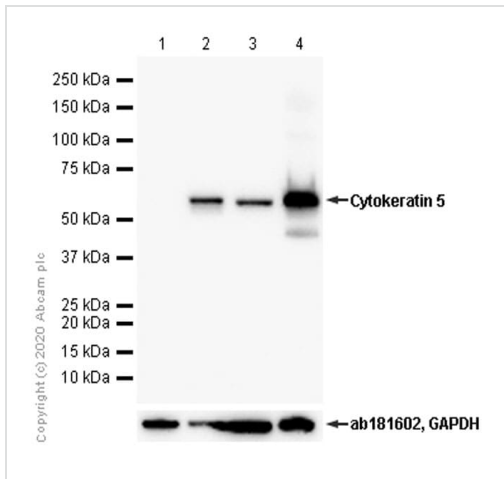
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/20000 dilution

**Predicted band size:** 62 kDa

**Observed band size:** 87 kDa

**Exposure time:** 10 seconds

**Blocking buffer:** 5% NFD /TBST.



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

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

**Lane 1 :** Human skin lysates prepared in RIPA lysis method

**Lane 2 :** Human skin lysates prepared in 1%SDS Hot lysis method

**Lane 3 :** Mouse skin lysates prepared in RIPA lysis method

**Lane 4 :** Mouse skin lysates prepared in 1%SDS Hot lysis method

Lysates/proteins at 20 µg per lane.

### Secondary

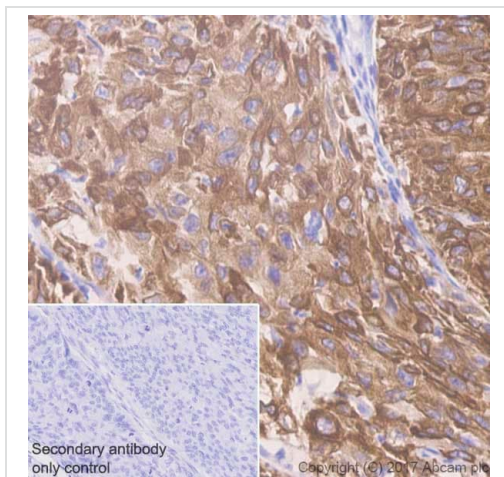
**All lanes :** Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Predicted band size:** 62 kDa

The lysates were prepared in 1%SDS Hot lysis method.

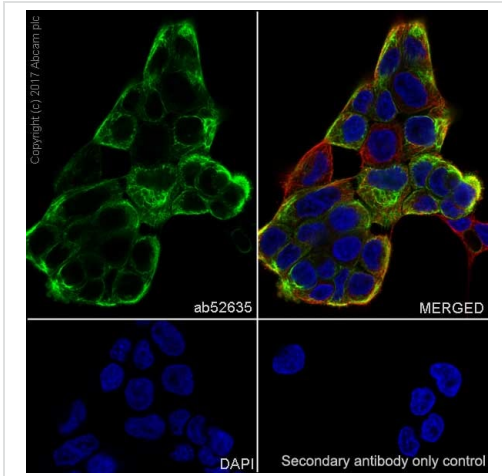
Observed MW: 62kDa

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



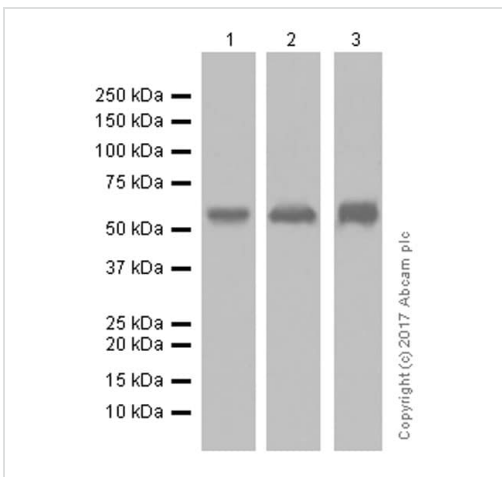
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

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.



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.

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



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

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

**Lane 1 :** Human fetal skin lysates

**Lane 2 :** Rat skin lysates

**Lane 3 :** Mouse skin lysates

Lysates/proteins at 20 µg per lane.

**Secondary**

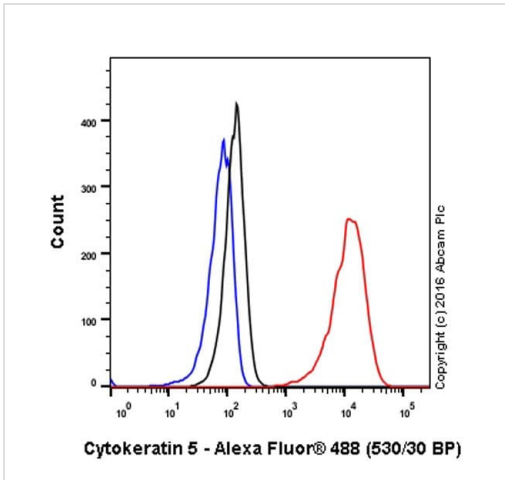
**All lanes :** Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

**Predicted band size:** 62 kDa

**Observed band size:** 62 kDa

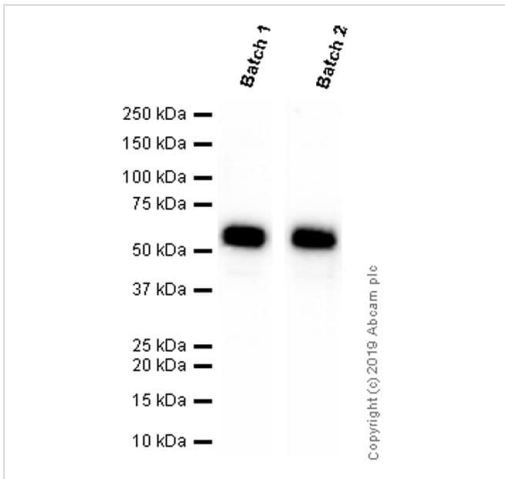
Blocking and diluting buffer: 5% NFDm/TBST.

The lysates were prepared in 1%SDS Hot lysis method.



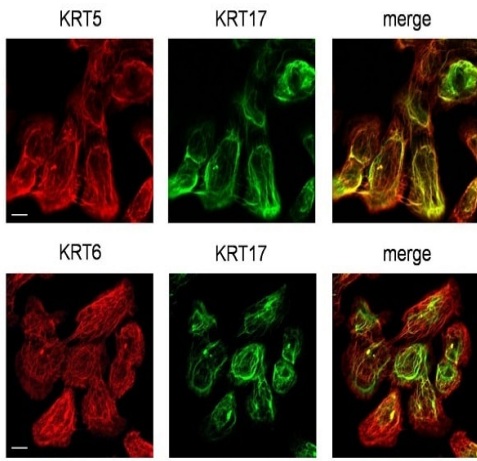
Flow Cytometry (Intracellular) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

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 Fluor®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.



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

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.



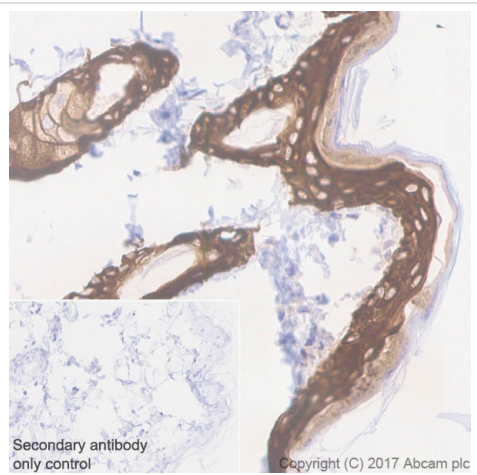
### Colocalization of KRT5, KRT6 and KRT17 in HSC3 cells

Immunocytochemistry in HSC3 (human oral squamous carcinoma cell line) cells. Scale bar, 10  $\mu$ m.

(Taken from Figure S3 of Khanom et al)

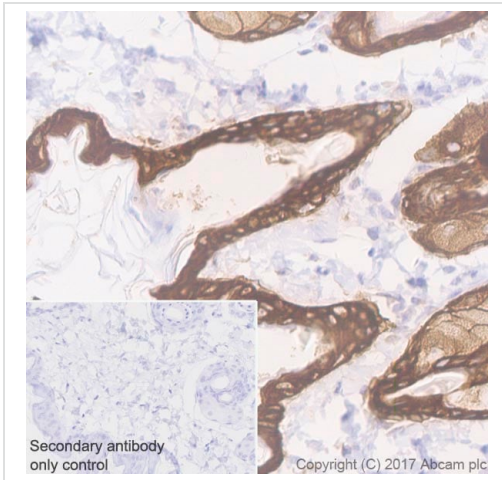
Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

Khanom, R. et al PLoS One. 2016 Aug 11;11(8):e0161163. doi: 10.1371/journal.pone.0161163. eCollection 2016  
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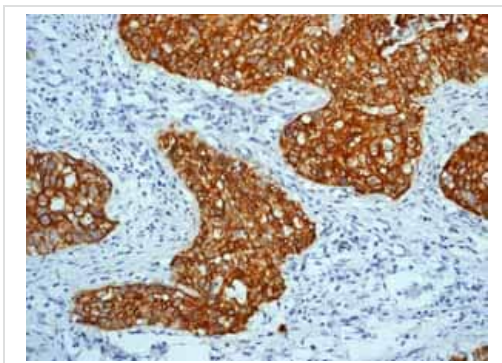
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of rat skin tissue sections labeling Cytokeratin 5 with Purified ab52635 at 1:200 dilution. Heat mediated antigen retrieval was performed using **ab93684** (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used. PBS instead of the primary antibody was used as the negative control.

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.

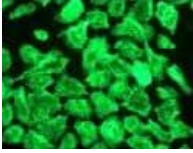
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)



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

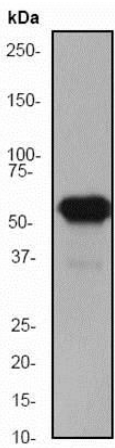
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)





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

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



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

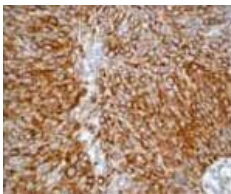
Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635) at 1/10000 dilution (unpurified) + A431 cell lysate at 10  $\mu$ g

### Secondary

Goat anti-rabbit HRP at 1/2000 dilution

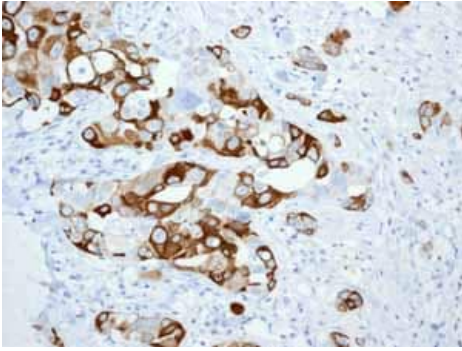
**Predicted band size:** 62 kDa

**Observed band size:** 62 kDa



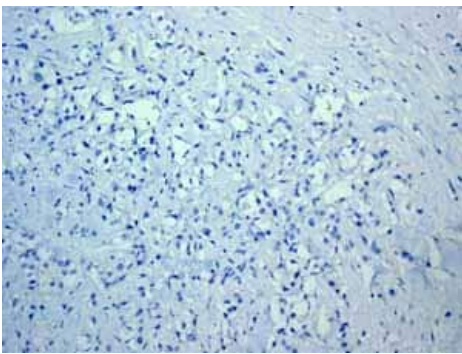
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 5 antibody [EP1601Y] - Cytoskeleton Marker (ab52635)

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



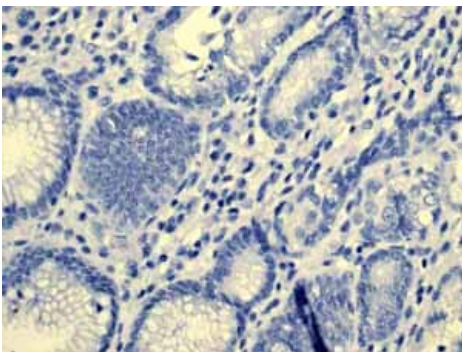
Unpurified ab52635 showing positive staining in basal cell breast carcinoma tissue.

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



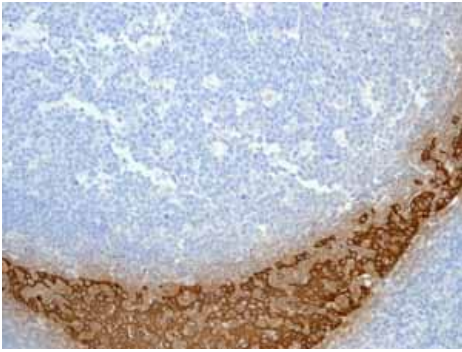
Unpurified ab52635 showing negative staining in ductal breast carcinoma tissue.

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



Unpurified ab52635 showing negative staining in stomach adenocarcinoma tissue.

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



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)



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)

### Why choose a recombinant antibody?



**Research with confidence**  
Consistent and reproducible results



**Long-term and scalable supply**  
Recombinant technology



**Success from the first experiment**  
Confirmed specificity



**Ethical standards compliant**  
Animal-free production

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

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
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- Extensive multi-media technical resources to help you
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