

# Anti-Cytokeratin 1 antibody [EPR17870] - BSA and Azide free ab250845

Recombinant RabMAb

6 Images

### Overview

<b>Product name</b>	Anti-Cytokeratin 1 antibody [EPR17870] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR17870] to Cytokeratin 1 - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> IHC-Fr, IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse
<b>Immunogen</b>	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
<b>General notes</b>	<p>ab250845 is the carrier-free version of <a href="#">ab185629</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <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. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR17870
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab250845 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
<b>IHC-Fr</b>		Use at an assay dependent concentration.
<b>IHC-P</b>		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
<b>WB</b>		Use at an assay dependent concentration. Detects a band of approximately 66 kDa (predicted molecular weight: 66 kDa).

## Target

<b>Function</b>	May regulate the activity of kinases such as PKC and SRC via binding to integrin beta-1 (ITB1) and the receptor of activated protein kinase C (RACK1/GNB2L1).
<b>Tissue specificity</b>	The source of this protein is neonatal foreskin. The 67-kDa type II keratins are expressed in terminally differentiating epidermis.
<b>Involvement in disease</b>	<p>Defects in KRT1 are a cause of bullous congenital ichthyosiform erythroderma (BCIE) [MIM:113800]; also known as epidermolytic hyperkeratosis (EHK) or bullous erythroderma ichthyosiformis congenita of Brocq. BCIE is an autosomal dominant skin disorder characterized by widespread blistering and an ichthyotic erythroderma at birth that persist into adulthood. Histologically there is a diffuse epidermolytic degeneration in the lower spinous layer of the epidermis. Within a few weeks from birth, erythroderma and blister formation diminish and hyperkeratoses develop.</p> <p>Defects in KRT1 are the cause of ichthyosis hystrix Curth-Macklin type (IHCM) [MIM:146590]. IHCM is a genodermatosis with severe verrucous hyperkeratosis. Affected individuals manifest congenital verrucous black scale on the scalp, neck, and limbs with truncal erythema, palmoplantar keratoderma and keratoses on the lips, ears, nipples and buttocks.</p> <p>Defects in KRT1 are a cause of palmoplantar keratoderma non-epidermolytic (NEPPK) [MIM:600962]. NEPPK is a dermatological disorder characterized by focal palmoplantar keratoderma with oral, genital, and follicular lesions.</p>

Defects in KRT1 are a cause of ichthyosis annular epidermolytic (AEI) [MIM:607602]; also known as cyclic ichthyosis with epidermolytic hyperkeratosis. AEI is a skin disorder resembling bullous congenital ichthyosiform erythroderma. Affected individuals present with bullous ichthyosis in early childhood and hyperkeratotic lichenified plaques in the flexural areas and extensor surfaces at later ages. The feature that distinguishes AEI from BCIE is dramatic episodes of flares of annular polycyclic plaques with scale, which coalesce to involve most of the body surface and can persist for several weeks or even months.

Defects in KRT1 are the cause of palmoplantar keratoderma striate type 3 (SPPK3) [MIM:607654]; also known as keratosis palmoplantaris striata III. SPPK3 is a dermatological disorder affecting palm and sole skin where stratum corneum and epidermal layers are thickened. There is no involvement of non-palmoplantar skin, and both hair and nails are normal.

#### Sequence similarities

Belongs to the intermediate filament family.

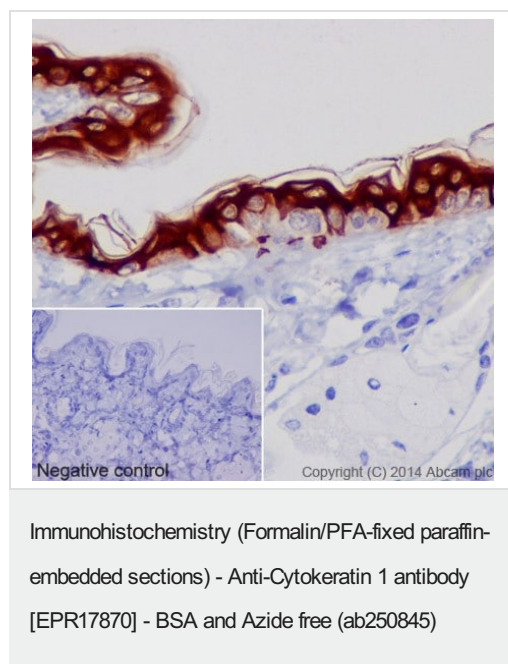
#### Post-translational modifications

Undergoes deimination of some arginine residues (citrullination).

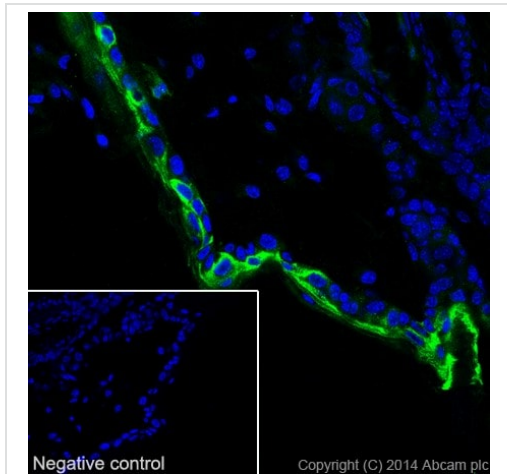
#### Cellular localization

Cell membrane. Located on plasma membrane of neuroblastoma NMB7 cells.

### Images

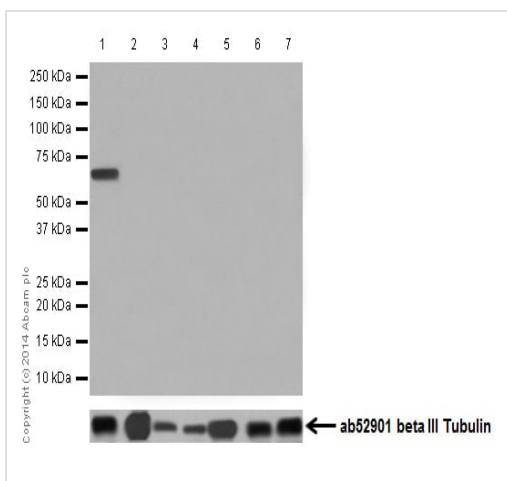


This data was developed using [ab185629](#), the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded mouse skin tissue labeling Cytokeratin 1 with [ab185629](#) at 1/200 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) secondary antibody at 1/500 dilution. Cytoplasm staining on keratinized epithelium of the mouse skin tissue is observed. Counter stained with Hematoxylin. Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-Cytokeratin 1 antibody [EPR17870] - BSA and Azide free (ab250845)

This data was developed using [ab185629](#), the same antibody clone in a different buffer formulation. Immunohistochemical analysis of 4% paraformaldehyde-fixed frozen mouse skin tissue labeling Cytokeratin 1 with [ab185629](#) at 1/100 dilution, followed by AlexaFluor®488 Goat anti-Rabbit ([ab150077](#)) secondary antibody at 1/500 dilution. Confocal image showing cytoplasm staining on keratinized epithelium of the mouse skin. Negative control: Used PBS instead of primary antibody, secondary antibody is AlexaFluor®488 Goat anti-Rabbit ([ab150077](#)) at 1/500 dilution.



Western blot - Anti-Cytokeratin 1 antibody [EPR17870] - BSA and Azide free (ab250845)

**All lanes :** Anti-Cytokeratin 1 antibody [EPR17870] ([ab185629](#)) at 1/5000 dilution

**Lane 1 :** Mouse skin tissue lysate

**Lane 2 :** Mouse brain tissue lysate

**Lane 3 :** Mouse heart tissue lysate

**Lane 4 :** Mouse kidney tissue lysate

**Lane 5 :** Mouse spleen tissue lysate

**Lane 6 :** RAW 264.7 (Mouse macrophage cells transformed with Abelson murine leukemia virus) whole cell lysate

**Lane 7 :** NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lysates/proteins at 10 µg per lane.

### Secondary

**All lanes :** Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

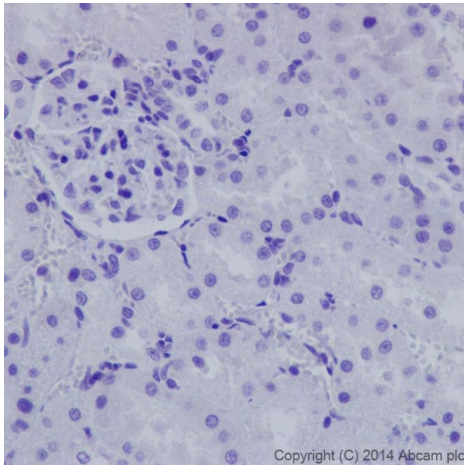
**Predicted band size:** 66 kDa

**Observed band size:** 66 kDa

This data was developed using [ab185629](#), the same antibody clone in a different buffer formulation.

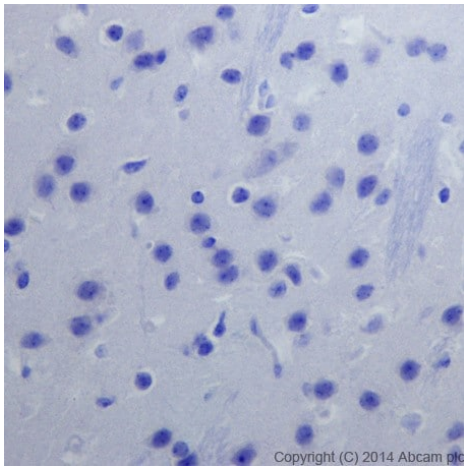
**Blocking and dilution buffer:** 5% NFDm/TBST.

Cytokeratin 1 is expressed in terminally differentiating epidermis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 1 antibody [EPR17870] - BSA and Azide free (ab250845)

This data was developed using [ab185629](#), the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Cytokeratin 1 with [ab185629](#) at 1/200 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) secondary antibody at 1/500 dilution. Negative on mouse kidney tissue. Counter stained with Hematoxylin. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 1 antibody [EPR17870] - BSA and Azide free (ab250845)

This data was developed using [ab185629](#), the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded mouse brain tissue labeling Cytokeratin 1 with [ab185629](#) at 1/200 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) secondary antibody at 1/500 dilution. Negative on mouse brain tissue. Counter stained with Hematoxylin. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

### 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 1 antibody [EPR17870] - BSA and Azide free (ab250845)

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

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