

Anti-Cytokeratin 1 antibody [EPR17744] - BSA and Azide free ab250844

Recombinant RabMAb

8 Images

Overview

Product name	Anti-Cytokeratin 1 antibody [EPR17744] - BSA and Azide free
Description	Rabbit monoclonal [EPR17744] to Cytokeratin 1 - BSA and Azide free
Host species	Rabbit
Specificity	Recombinant mouse cytokeratin 5 could be detected at very high antibody concentrations in WB.
Tested applications	Suitable for: IHC-Fr, IHC-P, WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
General notes	ab250844 is the carrier-free version of ab185628 .

Our **carrier-free** 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.

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.

Use our **conjugation kits** for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

This product is compatible with the Maxpar[®] Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar[®] is a trademark of Fluidigm Canada Inc.

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 production

For more information [see here](#).

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

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.20 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR17744
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab250844 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
IHC-Fr		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Detects a band of approximately 66 kDa (predicted molecular weight: 66 kDa).

Target

Function	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).
Tissue specificity	The source of this protein is neonatal foreskin. The 67-kDa type II keratins are expressed in terminally differentiating epidermis.
Involvement in disease	<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</p>

keratoderma with oral, genital, and follicular lesions.

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.

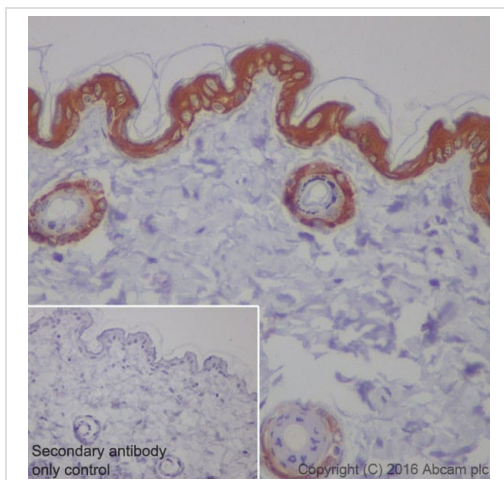
Post-translational modifications

Undergoes deimination of some arginine residues (citrullination).

Cellular localization

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

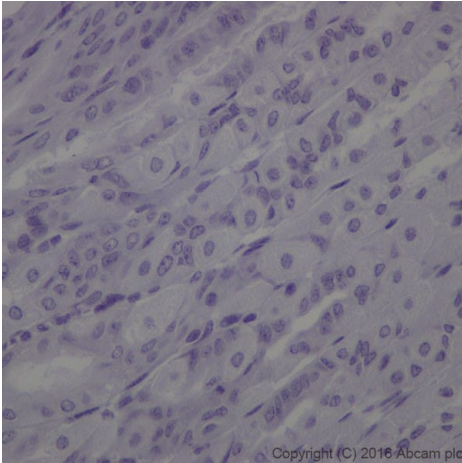
Images



This data was developed using [ab185628](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded mouse skin tissue labeling Cytokeratin 1 with [ab185628](#) at 1/600 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasm staining on mouse skin is observed (PMID: 12010363). Counter stained with Hematoxylin. Secondary antibody only 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.

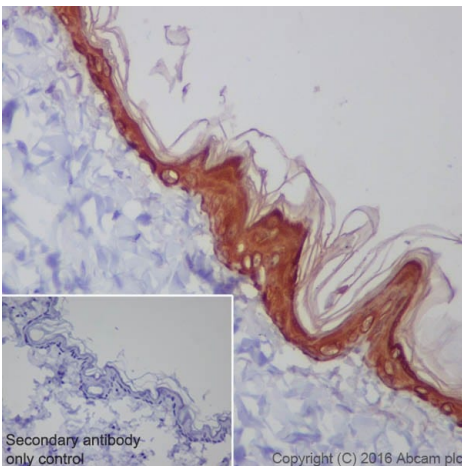
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 1 antibody [EPR17744] - BSA and Azide free (ab250844)



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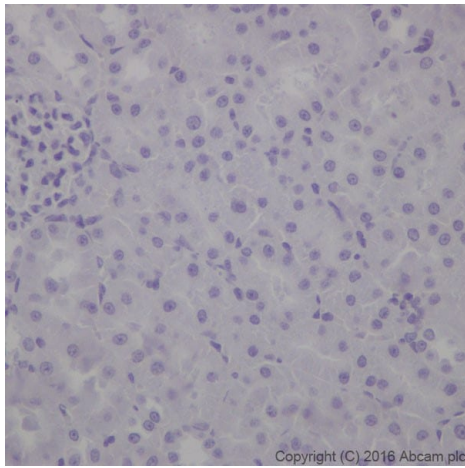
This data was developed using [ab185628](#), the same antibody clone in a different buffer formulation.

Immunohistochemical analysis of paraffin-embedded mouse stomach tissue labeling Cytokeratin 1 with [ab185628](#) at 1/600 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. **Negative Control:** No staining on mouse stomach. Counter stained with Hematoxylin. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



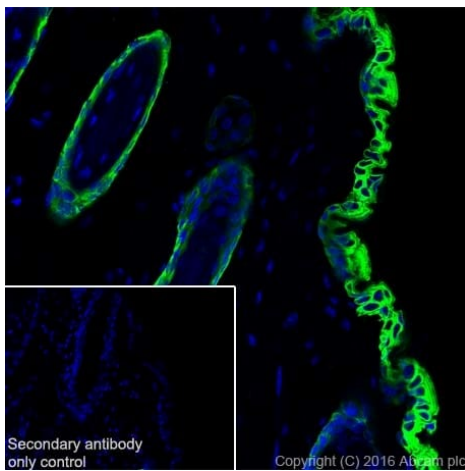
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 1 antibody [EPR17744] - BSA and Azide free (ab250844)

This data was developed using [ab185628](#), the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded rat skin tissue labeling Cytokeratin 1 with [ab185628](#) at 1/600 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasm staining on rat skin is observed (PMID: 12010363). Counter stained with Hematoxylin. Secondary antibody only 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.



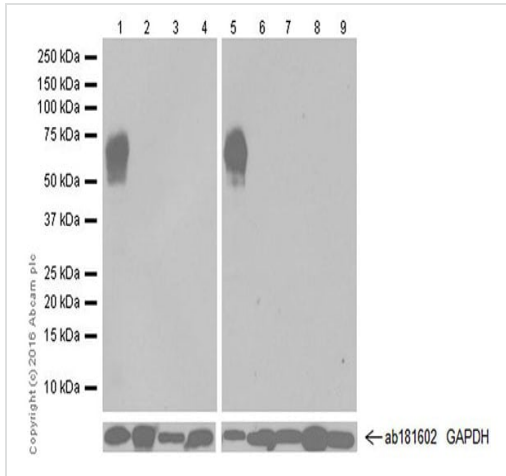
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 1 antibody [EPR17744] - BSA and Azide free (ab250844)

This data was developed using [ab185628](#), the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling Cytokeratin 1 with [ab185628](#) at 1/600 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. **Negative Control:** No staining on rat kidney. Counter stained with Hematoxylin. 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 [EPR17744] - BSA and Azide free (ab250844)

This data was developed using [ab185628](#), the same antibody clone in a different buffer formulation. Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse skin tissue section labeling Cytokeratin 1 with [ab185628](#) at 1/200 dilution, followed by Goat Anti-Rabbit IgG (Alexa Fluor[®] 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). The result showed cytoplasmic staining on mouse skin. The nuclear counter stain is DAPI (blue). Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG (Alexa Fluor[®] 488) ([ab150077](#)) at 1/1000 dilution.



Western blot - Anti-Cytokeratin 1 antibody
[EPR17744] - BSA and Azide free (ab250844)

All lanes : Anti-Cytokeratin 1 antibody [EPR17744] (**ab185628**) at 1/20000 dilution

Lane 1 : Mouse skin lysate

Lane 2 : Mouse brain lysate

Lane 3 : Mouse spleen lysate

Lane 4 : Mouse heart lysate

Lane 5 : Rat skin lysate

Lane 6 : Rat brain lysate

Lane 7 : Rat spleen lysate

Lane 8 : C6 (Rat glial tumor cell line) whole cell lysate

Lane 9 : RAW 264.7 (Mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 66 kDa

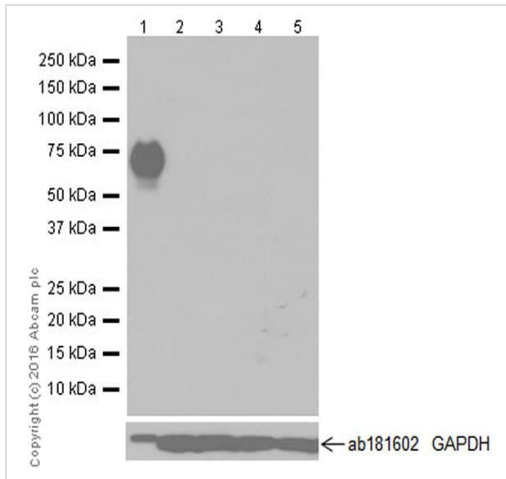
Observed band size: 66 kDa

This data was developed using **ab185628**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFD/MTBST.

Exposure time: Lanes 1-4: 30 seconds; Lanes 5-9: 3 minutes.

Cytokeratin 1 is expressed in terminally differentiating epidermis (PMID: 2580302).



Western blot - Anti-Cytokeratin 1 antibody
[EPR17744] - BSA and Azide free (ab250844)

All lanes : Anti-Cytokeratin 1 antibody [EPR17744] (**ab185628**) at 1/20000 dilution

Lane 1 : Human skin lysate

Lane 2 : Human fetal brain lysate

Lane 3 : Human fetal heart lysate

Lane 4 : Human fetal kidney lysate

Lane 5 : Human spleen lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 66 kDa

Observed band size: 66 kDa




Exposure time: 3 minutes

This data was developed using **ab185628**, the same antibody clone in a different buffer formulation.

Blocking and dilution buffer: 5% NFD/MTBST.

Cytokeratin 1 is expressed in terminally differentiating epidermis (PMID: 2580302).

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-Cytokeratin 1 antibody [EPR17744] - BSA and Azide free (ab250844)

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

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