abcam

Product datasheet

Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker ab181595

KO 評価済 リコンビナント RabMAb

3 Abreviews 66 References 画像数 12

製品の概要

製品名	Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker
製品の詳細	Rabbit monoclonal [EPR17350] to Cytokeratin 14 - Cytoskeleton Marker
由来種	Rabbit
アプリケーション	**適用あり:** Flow Cyt (Intra), IHC-P, WB, ICC/IF
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: A431 and HaCaT whole cell lysates; Mouse, rat and human skin lysates. IHC-P: Human skin and squamous cell carcinoma of cervix tissues; Mouse and rat skin tissues; FFPE A431 cell pellet. ICC/IF: PC-12 cells and wild-type A431 cells. Flow Cyt (intra): PC-12 cells.
特記事項	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**.

製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル
クローン名	EPR17350

アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab181595の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/190.
IHC-P	★★★★★ (1)	Use a concentration of 0.01 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	★★★★★ (1)	1/20000. Detects a band of approximately 53 kDa (predicted molecular weight: 53 kDa).
ICC/IF	★★★★★ (1)	Use a concentration of 0.2 µg/ml.

ターゲット情報

機能

The nonhelical tail domain is involved in promoting KRT5-KRT14 filaments to self-organize into large bundles and enhances the mechanical properties involved in resilience of keratin intermediate filaments in vitro.

組織特異性

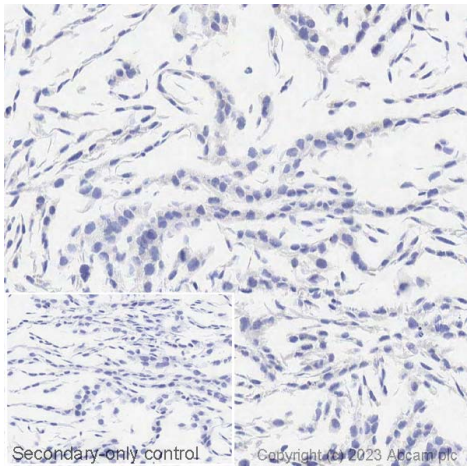
Detected in the basal layer, lowered within the more apically located layers specifically in the stratum spinosum, stratum granulosum but is not detected in stratum corneum. Strongly expressed in the outer root sheath of anagen follicles but not in the germinative matrix, inner root sheath or hair. Found in keratinocytes surrounding the club hair during telogen.

関連疾患

Defects in KRT14 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 KRT14 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 KRT14 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 KRT14 are the cause of epidermolysis bullosa simplex autosomal recessive (AREBS) [MIM:601001]. AREBS is an intraepidermal epidermolysis bullosa characterized by localized blistering on the dorsal, lateral and plantar surfaces of the feet.
Defects in KRT14 are the cause of Naegeli-Franceschetti-Jadassohn syndrome (NFJS) [MIM:161000]; also known as Naegeli syndrome. NFJS is a rare autosomal dominant form of ectodermal dysplasia. The cardinal features are absence of dermatoglyphics (fingerprints), reticular cutaneous hyperpigmentation (starting at about the age of 2 years without a preceding inflammatory stage), palmoplantar keratoderma, hypohidrosis with diminished sweat gland function and discomfort provoked by heat, nail dystrophy, and tooth enamel defects.
Defects in KRT14 are the cause of dermatopathia pigmentosa reticularis (DPR) [MIM:125595].

	DPR is a rare ectodermal dysplasia characterized by lifelong persistent reticulate hyperpigmentation, noncicatricial alopecia, and nail dystrophy.
配列類似性	Belongs to the intermediate filament family.
細胞内局在	Cytoplasm. Nucleus. Expressed in both as a filamentous pattern.

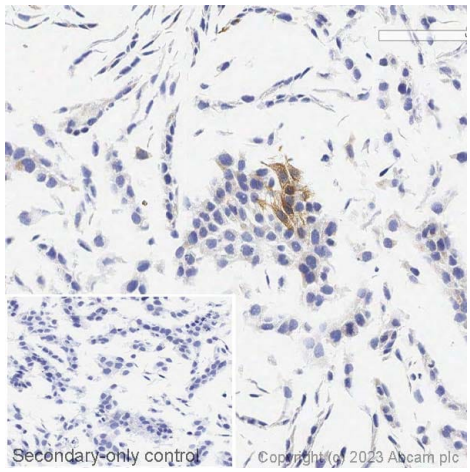
画像



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)
Lab

Negative control image: IHC image of Cytokeratin 14 staining in a section of formalin-fixed paraffin-embedded A431 KO cell pellet block 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 ab181595, 0.01ug/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.

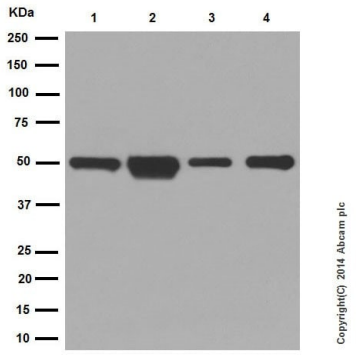
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)
Lab

IHC image of Cytokeratin 14 staining in a section of formalin-fixed paraffin-embedded A431 WT cell pellet block 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 ab181595, 0.01ug/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.



Western blot - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

All lanes : Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595) at 1/20000 dilution

Lane 1 : A431 (Human epidermoid carcinoma) whole cell lysate
Lane 2 : HaCaT (Human keratinocyte cells) whole cell lysate
Lane 3 : Mouse skin lysate
Lane 4 : Rat skin lysate

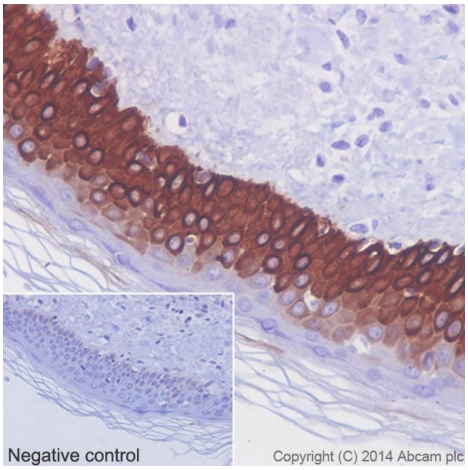
Lysates/proteins at 20 µg per lane.

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

Predicted band size: 53 kDa
Observed band size: 53 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

HaCaT cells express a higher level of Cytokeratin 14 than other cell lines such as A431.

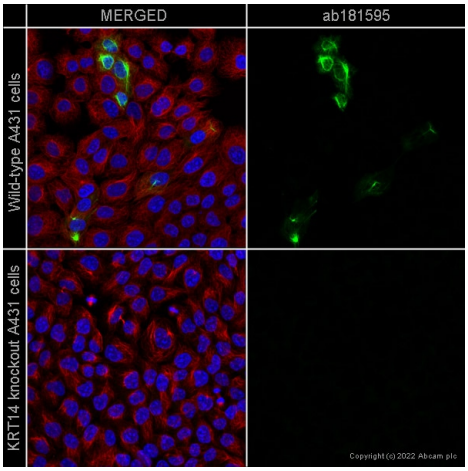


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

Immunohistochemical analysis of paraffin-embedded human skin tissue labeling Cytokeratin 14 with ab181595 at 1/2000 dilution, followed by prediluted HRP polymer for Rabbit/Mouse IgG. Basal cells of epidermis show strong staining while no staining on the stratum corneum. Counterstained with hematoxylin.

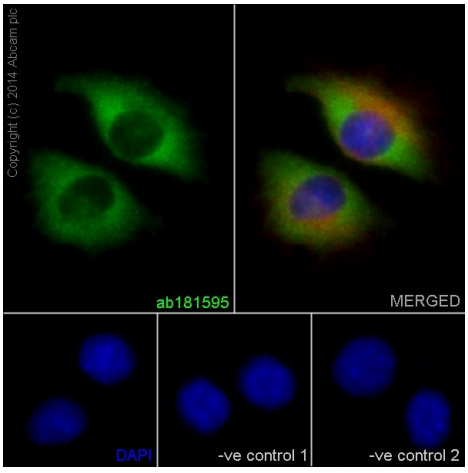
Negative control: PBS instead of primary antibody, secondary antibody is prediluted HRP polymer for Rabbit/Mouse IgG.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



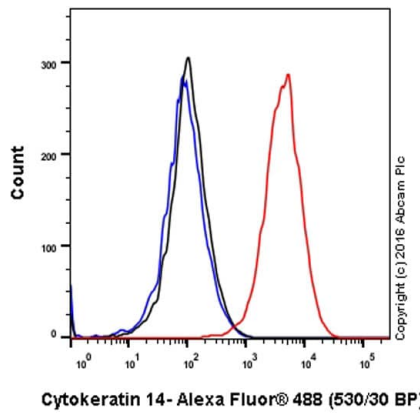
Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

ab181595 staining Cytokeratin 14 in wild-type A431 cells (top panel) and KRT14 knockout A431 cells (bottom panel). The cells were fixed with 100% methanol (5 min) then permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated with ab181595 at 0.2µg/ml concentration and **ab7291** (Mouse monoclonal to alpha Tubulin) at 1/1000 dilution overnight at 4°C followed by a further incubation at room temperature for 1h with a goat secondary antibody to rabbit IgG (Alexa Fluor® 488) (**ab150081**) at 2 µg/ml (shown in green) and a goat secondary antibody to mouse IgG (Alexa Fluor® 594) (**ab150120**) at 2 µg/ml (shown in red). Nuclear DNA was labelled in blue with DAPI.
Image was taken with a confocal microscope (Leica-Microsystems TCS SP8).



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

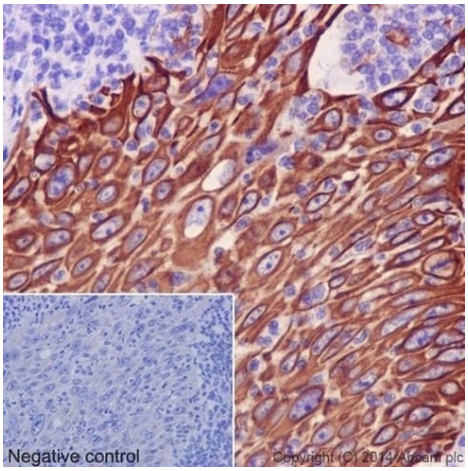
Immunofluorescent analysis of 4% paraformaldehyde fixed, 0.1% Triton X-100 permeabilized PC-12 (Rat adrenal gland pheochromocytoma cells) labeling Cytokeratin 14 with ab181595 at 1/1000 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/400 dilution (green). Cytoplasm staining on PC-12 cell line is observed. The nuclear counterstain is DAPI (blue). Tubulin is detected with **ab7291** (anti-Tubulin mouse mAb) at 1/500 dilution and **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution (red).
The negative controls:-
-ve control 1: ab181595 at 1/1000 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 dilution.
-ve control 2: **ab7291** (anti-Tubulin mouse mAb) at 1/500 dilution followed by **ab150077** (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/400 dilution.



Flow Cytometry (Intracellular) - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

Intracellular Flow Cytometry analysis of PC-12 (rat adrenal gland pheochromocytoma) cells labeling Cytokeratin 14 with purified ab181595 at 1/190 dilution (10µg/mL) (**red**).

Cells were fixed with 4% paraformaldehyde and permeabilized with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) at 1/2000 dilution was used as the secondary antibody. Rabbit monoclonal IgG (**ab172730**) (**Black**) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (**Blue**) was used as the unlabeled control.

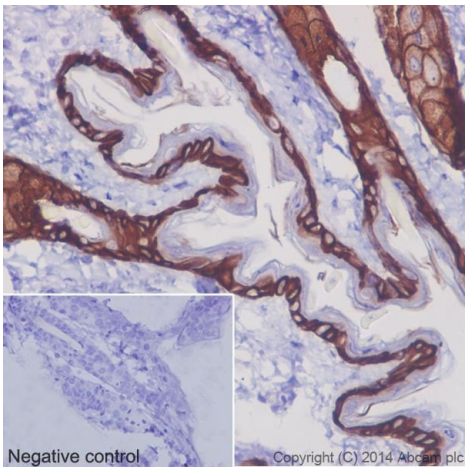


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

Immunohistochemical analysis of paraffin-embedded human squamous cell carcinoma of cervix tissue labeling Cytokeratin 14 with ab181595 at 1/2000 dilution, followed by prediluted HRP polymer for Rabbit/Mouse IgG. Squamous carcinoma cells show strong staining. Counterstained with hematoxylin.

Negative control: PBS instead of primary antibody, secondary antibody is prediluted HRP polymer for Rabbit/Mouse IgG.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

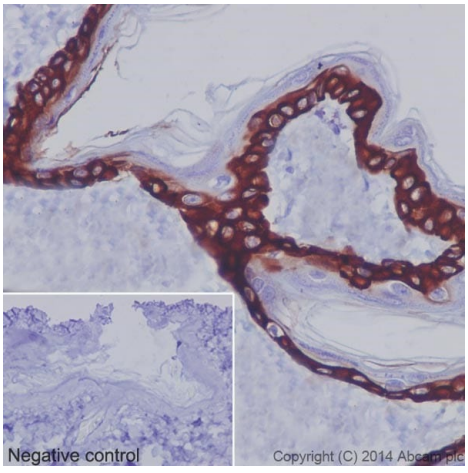


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

Immunohistochemical analysis of paraffin-embedded mouse skin tissue labeling Cytokeratin 14 with ab181595 at 1/2000 dilution, followed by prediluted HRP polymer for Rabbit/Mouse IgG. Basal cells of epidermis show strong staining while no staining on the stratum corneum. Counterstained with hematoxylin.

Negative control: PBS instead of primary antibody, secondary antibody is prediluted HRP polymer for Rabbit/Mouse IgG.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

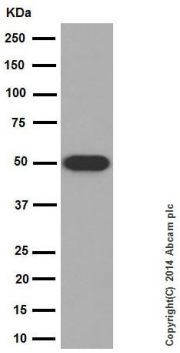


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

Immunohistochemical analysis of paraffin-embedded rat skin tissue labeling Cytokeratin 14 with ab181595 at 1/2000 dilution, followed by prediluted HRP polymer for Rabbit/Mouse IgG. Basal cells of epidermis show strong staining while no staining on the stratum corneum. Counterstained with hematoxylin.

Negative control: PBS instead of primary antibody, secondary antibody is prediluted HRP polymer for Rabbit/Mouse IgG.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595) at 1/20000 dilution + Human skin lysate at 10 µg

Secondary

Anti-Rabbit IgG (HRP), specific to the non-reduced form of IgG at 1/1000 dilution

Predicted band size: 53 kDa

Observed band size: 53 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Anti-Cytokeratin 14 antibody [EPR17350] - Cytoskeleton Marker (ab181595)

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