abcam

Product datasheet

Alexa Fluor® 488 Anti-Cytokeratin 5 antibody [EP1601Y] ab193894

Recombinant RabMAb

9 References 4 Images

Overview

Product name	Alexa Fluor® 488 Anti-Cytokeratin 5 antibody [EP1601Y]
Description	Alexa Fluor® 488 Rabbit monoclonal [EP1601Y] to Cytokeratin 5
Host species	Rabbit
Conjugation	Alexa Fluor® 488. Ex: 495nm, Em: 519nm
Tested applications	**Suitable for:** ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Human **Predicted to work with:** Mouse
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	ICC/IF: HACAT cells. Flow Cyt (intra)ometry: A431
General notes	Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**. Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or **outlicensing@thermofisher.com**.

Properties

Form	Liquid

Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Store In the Dark.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: PBS, 30% Glycerol (glycerin, glycerine), 1% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1601Y
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab193894 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
ICC/IF		1/200.
Flow Cyt (Intra)		1/500.

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.

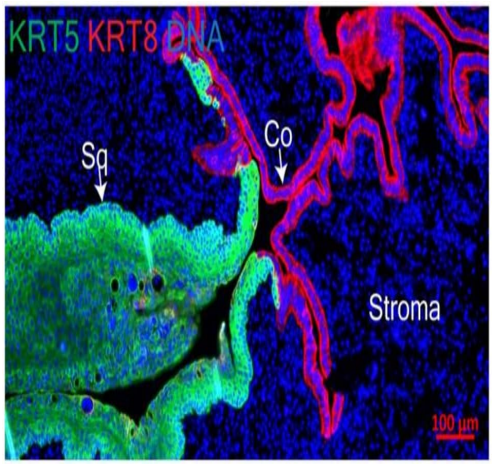
Defects in KRT5 are a cause of epidermolysis bullosa simplex Koebner type (K-EBS) [MIM:131900]. K-EBS is a form of intraepidermal epidermolysis bullosa characterized by generalized skin blistering. The phenotype is not fundamentally distinct from the Dowling-Meara type, althought it is less severe.

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



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Cytokeratin 5 antibody [EP1601Y] (ab193894)

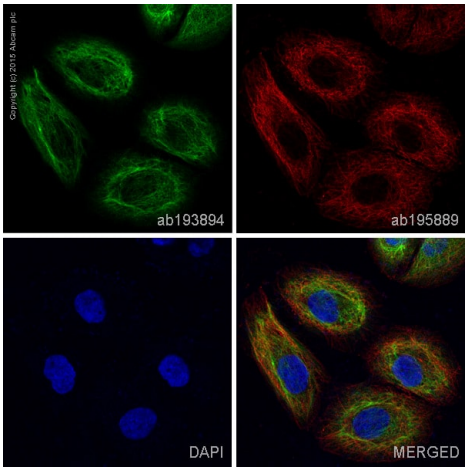
Chumduri et al http://dx.doi.org/10.1101/443770doi. Fig 1D.

Cervix consists of two distinct KRT5+ stratified and KRT7+/8+ columnar epithelial lineages.

Panel D shown only.

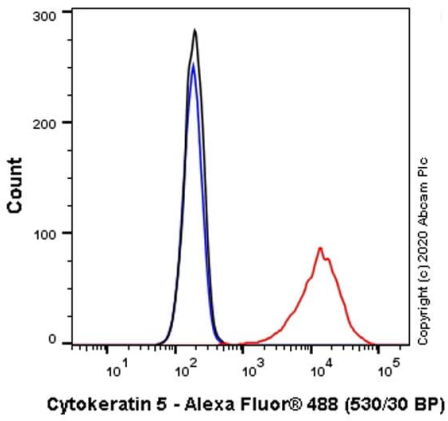
Transition zone (TZ) including stratified and columnar epithelium from human (A,C) and mouse (B, D) cervix tissue sections immunolabeled with antibodies against KRT5 (ab193894) and KRT8; nuclei are shown in blue.

Organoids were washed five times with cold PBS to remove Matrigel before fixing with 4% paraformaldehyde for 1 h at room temperature (RT) followed by washing with PBS twice. Organoids were then subjected to dehydration in an ascending ethanol series followed by isopropanol and acetone for 20 min each. The dehydrated organoids were paraffin-embedded and 5 µM sections cut on a Microm HM 315 microtome. Mouse and human tissues were extensively washed with PBS and fixed using 4% PFA overnight at RT. Samples were subjected to dehydration in an ascending ethanol series followed by isopropanol and xylene (60 min each) followed by paraffinization using a Leica TP1020 tissue processor. The tissue was embedded and 5 µM sections cut on a microtome. For immunostaining, paraffin sections were deparaffinized and rehydrated, followed by treatment with antigen retrieval solution. Sections were blocked using blocking buffer (1% BSA and 2% FCS in PBS) for 1 h at RT. Primary antibodies were diluted in blocking buffer and incubated for 90 mins at RT followed by five PSB washes before 1 h incubation with secondary antibodies diluted in blocking buffer along with Hoechst or Draq5. Sections were washed with PBS five times and mounted. Images were acquired with a Leica TCS SP8 confocal microscope.



Immunocytochemistry/ Immunofluorescence - Alexa Fluor® 488 Anti-Cytokeratin 5 antibody [EP1601Y] (ab193894)

ab193894 staining Cytokeratin 5 in HACAT cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 10% normal goat serum in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab193894 at 1/200 dilution (shown in green) and **ab195889**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 594), at 1/200 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).



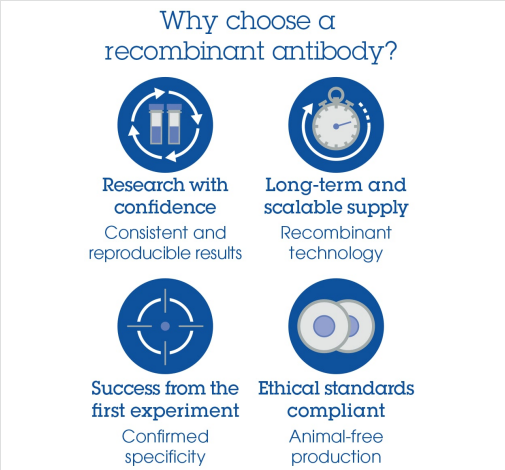
Flow Cytometry (Intracellular) - Alexa Fluor® 488 Anti-Cytokeratin 5 antibody [EP1601Y] (ab193894)

Flow cytometry overlay histogram showing A431 cells stained with ab193894 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1 % PBS-Triton X-100 for 15 min. The cells were incubated in 1x PBS containing 10% normal goat serum to block non-specific protein-protein interaction followed by the antibody (ab193894) (1/500 dilution) for 30 min at 22°C.

Isotype control antibody (black line) was Rabbit IgG (monoclonal) Alexa Fluor 488® (**ab199091**) used at the same concentration and conditions as the primary antibody. Unlabelled sample (blue line) was also used as a control.

Acquisition of >5,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter.

This antibody gave a positive signal in A431 cells fixed with 4 % formaldehyde (10 min) / permeabilized with 0.1 % PBS-Triton X-100 for 15 min used under the same conditions.



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