

Product datasheet

Anti-Cytokeratin 4 antibody [EP1599Y] α b51599

Recombinant RabMAb

★★★★★ [1 Abreviews](#) [14 References](#) [6 Images](#)

Overview

Product name	Anti-Cytokeratin 4 antibody [EP1599Y]
Description	Rabbit monoclonal [EP1599Y] to Cytokeratin 4
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), ICC/IF, IP, WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Cytokeratin 4 (C terminal). The exact sequence is proprietary.
Positive control	A431 cell lysate and human cervical carcinoma tissue. This antibody gave a positive result when used in the following methanol fixed cell lines: A431 Flow Cyt (intra): HeLa cells IP: HaCaT whole cell lysate.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	<p>pH: 7.20</p> <p>Preservative: 0.05% Sodium azide</p> <p>Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP1599Y

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab51599 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)		1/100 - 1/500. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/50 - 1/100.
IP		1/10 - 1/100.
WB		1/1000 - 1/10000. Detects a band of approximately 59 kDa (predicted molecular weight: 57 kDa).
IHC-P	★★★★★ (1)	1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Tissue specificity

Detected in the suprabasal layer of the stratified epithelium of the esophagus, exocervix, vagina, mouth and lingual mucosa, and in cells and cell clusters in the mucosa and serous gland ducts of the esophageal submucosa (at protein level). Expressed widely in the exocervix and esophageal epithelium, with lowest levels detected in the basal cell layer.

Involvement in disease

Defects in KRT4 are a cause of white sponge nevus of cannon (WSN) [MIM:193900]. WSN is a rare autosomal dominant disorder which predominantly affects non-cornified stratified squamous epithelia. Clinically, it is characterized by the presence of soft, white, and spongy plaques in the oral mucosa. The characteristic histopathologic features are epithelial thickening, parakeratosis, and vacuolization of the suprabasal layer of oral epithelial keratinocytes. Less frequently the mucous membranes of the nose, esophagus, genitalia and rectum are involved.

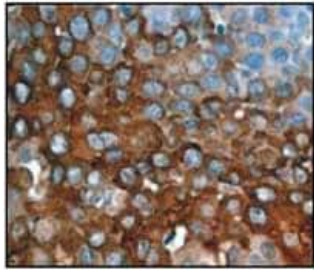
Sequence similarities

Belongs to the intermediate filament family.

Form

Localisation: Intermediate filament (Cytoskeleton).

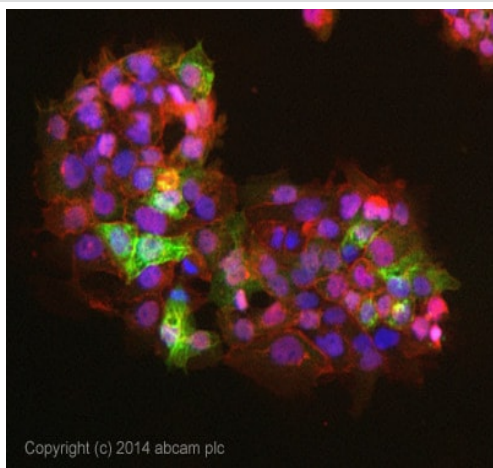
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 4 antibody [EP1599Y] (ab51599)

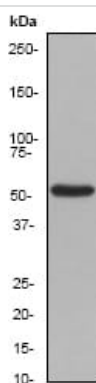
Immunohistochemical staining of paraffin embedded human cervical carcinoma tissue using ab51599 (1/100). Goat anti-rabbit HRP (1/2000) used for secondary staining.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 4 antibody [EP1599Y] (ab51599)

ICC/IF image of ab51599 stained A431 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab51599 at 1/100 dilution overnight at +4°C. The secondary antibody (pseudo-colored green) was Alexa Fluor® 488 goat anti-rabbit (**ab150081**) IgG (H+L) preadsorbed, used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (pseudo-colored red) at a 1/200 dilution for 1h at room temperature. DAPI was used to stain the cell nuclei (pseudo-colored blue) at a concentration of 1.43µM for 1hour at room temperature.



Western blot - Anti-Cytokeratin 4 antibody [EP1599Y] (ab51599)

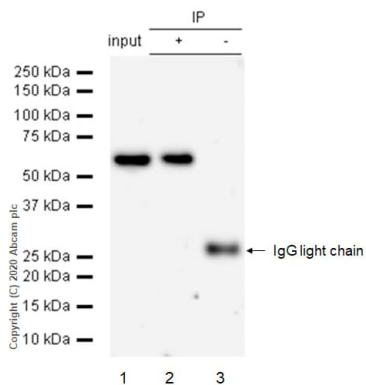
Anti-Cytokeratin 4 antibody [EP1599Y] (ab51599) at 1/1000 dilution + A431 cell lysate at 10 µg

Secondary

Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 57 kDa

Observed band size: 59 kDa



Purified ab51599 at 1/50 dilution (2µg) immunoprecipitating Cytokeratin 4 in HaCaT whole cell lysate.

Lane 1 (input): HaCaT (Human skin keratinocyte) whole cell lysate 10µg

Lane 2 (+): ab51599 + HaCaT whole cell lysate.

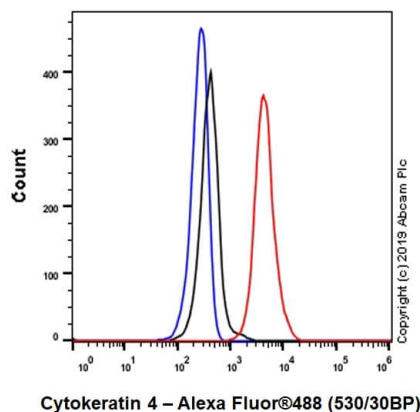
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab51599 in HaCaT whole cell lysate.

VeriBlot for IP Detection Reagent (HRP) (**ab131366**) (1/1000 dilution) was used for Western blotting.

Blocking Buffer and concentration: 5% NFDm/TBST.

Diluting buffer and concentration: 5% NFDm/TBST.

Observed band size: 59 kDa



Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Cytokeratin 4 with purified ab51599 at 1/100 dilution (10 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cells without incubation with primary antibody and secondary antibody (Blue).

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 4 antibody [EP1599Y] (ab51599)

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

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