abcam

Product datasheet

# Anti-Cytokeratin 16/K16 antibody [EP1615Y] ab76416

Recombinant RabMAb

★★★★★ 2 Abreviews 19 References 7 Images

## Overview

| | |
|---|---|
| **Product name** | Anti-Cytokeratin 16/K16 antibody [EP1615Y] |
| **Description** | Rabbit monoclonal [EP1615Y] to Cytokeratin 16/K16 |
| **Host species** | Rabbit |
| **Specificity** | Several customers have found that this antibody gives good results in mouse and rat however in our hands, we cannot obtain positive results. This antibody is therefore no longer covered by our Abpromise guarantee for use in mouse or rat. |
| **Tested applications** | **Suitable for:** Flow Cyt (Intra), IHC-P, WB, ICC/IF<br>**Unsuitable for:** IP |
| **Species reactivity** | **Reacts with:** Human |
| **Immunogen** | Synthetic peptide within Human Cytokeratin 16/K16 aa 1-100 (N terminal). The exact sequence is proprietary.<br>Database link: **P08779** |
| **Positive control** | HaCat cell lysate; human squamous cervical carcinoma tissue. |
| **General notes** | This product is a recombinant monoclonal antibody, which offers several advantages including:<br>- High batch-to-batch consistency and reproducibility<br>- Improved sensitivity and specificity<br>- Long-term security of supply<br>- Animal-free production<br>For more information **see here**.<br>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

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|---|---|
| **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. |
| **Storage buffer** | pH: 7.20<br>Preservative: 0.01% Sodium azide<br>Constituents: 49% PBS, 50% Glycerol (glycerin, glycerine), 0.05% BSA |

| | |
|---|---|
| **Purity** | Protein A purified |
| **Clonality** | Monoclonal |
| **Clone number** | EP1615Y |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab76416 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)** | | 1/50 - 1/150.<br>**ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |
| **IHC-P** | ★★★★★ (2) | 1/100 - 1/250. Perform heat mediated antigen retrieval via the pressure cooker method before commencing with IHC staining protocol. |
| **WB** | | 1/5000 - 1/10000. Predicted molecular weight: 51 kDa. |
| **ICC/IF** | | 1/100 - 1/150. |

**Application notes** Is unsuitable for IP.

## Target

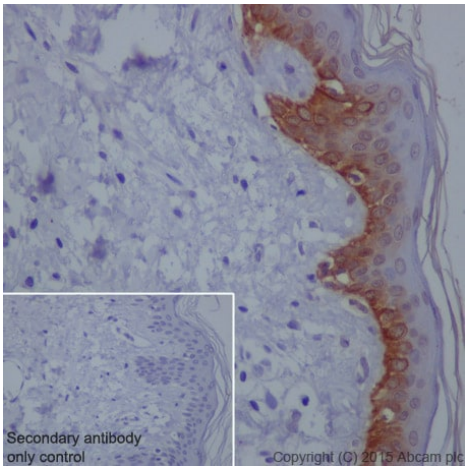
**Tissue specificity** Expressed in the hair follicle, nail bed and in mucosal stratified squamous epithelia and, suprabasally, in oral epithelium and palmoplantar epidermis. Also found in luminal cells of sweat and mammary gland ducts.

**Involvement in disease** Defects in KRT16 are a cause of pachyonychia congenita type 1 (PC1) [MIM:167200]; also known as Jadassohn-Lewandowsky syndrome. PC1 is an autosomal dominant ectodermal dysplasia characterized by hypertrophic nail dystrophy resulting in onchyogryposis (thickening and increase in curvature of the nail), palmoplantar keratoderma, follicular hyperkeratosis, and oral leukokeratosis. Hyperhidrosis of the hands and feet is usually present.
Defects in KRT16 are the cause of palmoplantar keratoderma non-epidermolytic focal (FNEPPK) [MIM:613000]. A dermatological disorder characterized by non-epidermolytic palmoplantar keratoderma limited to the pressure points on the balls of the feet, with later mild involvement on the palms. Oral, genital and follicular keratotic lesions are often present.
Defects in KRT16 are a cause of unilateral palmoplantar verrucous nevus (UPVN) [MIM:144200]. UPVN is characterized by a localized thickening of the skin in parts of the right palm and the right sole.
Note=KRT16 and KRT17 are coexpressed only in pathological situations such as metaplasias and carcinomas of the uterine cervix and in psoriasis vulgaris.

**Sequence similarities** Belongs to the intermediate filament family.

## Images

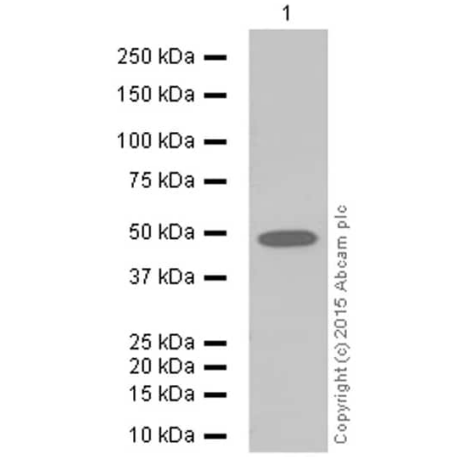
## Images




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 16/K16 antibody [EP1615Y] (ab76416)

ab76416 staining Cytokeratin 16/K16 in human skin tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/500. A goat anti-rabbit IgG H&L (HRP) **ab97051** was used as the secondary antibody at a dilution of 1/500.

**Negative control 1:** PBS in place of primary antibody.



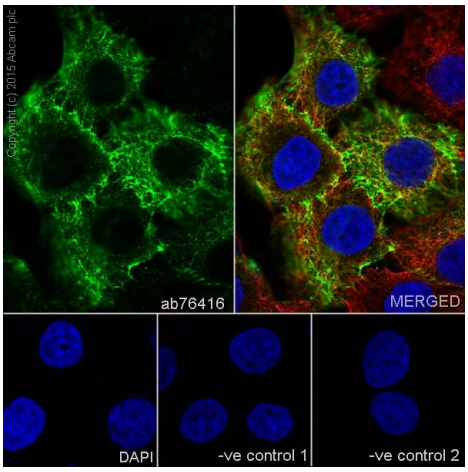

Western blot - Anti-Cytokeratin 16/K16 antibody [EP1615Y] (ab76416)

Anti-Cytokeratin 16/K16 antibody [EP1615Y] (ab76416) at 1/10000 dilution + HACAT (human keratinocyte) whole cell lysate at 10 µg

**Secondary**

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (**ab97051** at 1/20000 dilution

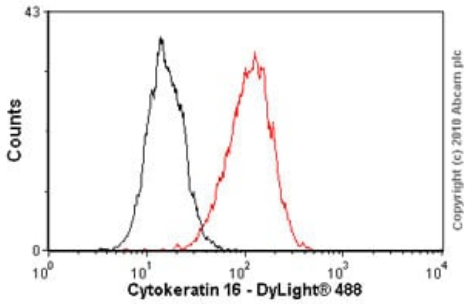
**Predicted band size:** 51 kDa




Immunocytochemistry/ Immunofluorescence - Anti-Cytokeratin 16/K16 antibody [EP1615Y] (ab76416)

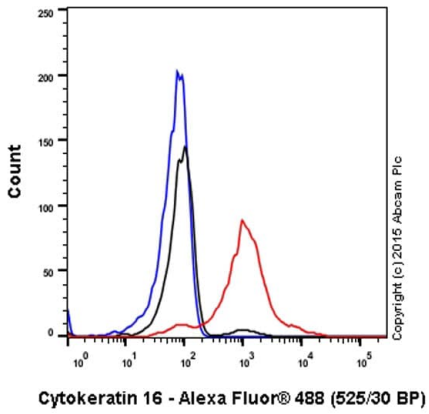
ab76416 staining Cytokeratin 16/K16 in A431 (human epidermoid carcinoma) cells by ICC/IF (Immunocytochemistry/immunofluorescence). Cells were fixed with 4% Paraformaldehyde and permeabilized with 0.1% Triton X-100. Samples were incubated with primary antibody at a dilution of 1/100. A goat anti rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody. **ab7291** and **ab150120** were used as counterstains for primary antibody **ab75748** and secondary antibody **ab150077** respectively and DAPI was used as a nuclear counterstain.

**Negative control 1**: Rabbit primary antibody and anti-mouse secondary antibody (**ab150120**)
**Negative control 2:** Mouse primary antibody (**ab7291**) and anti-rabbit secondary antibody (**ab150077**)




Flow Cytometry (Intracellular) - Anti-Cytokeratin 16/K16 antibody [EP1615Y] (ab76416)

Overlay histogram showing HepG2 cells stained with unpurified ab76416 (red line). The cells were fixed with methanol (5 min) and then permeabilized with 0.1% PBS-Triton for 20 min. The cells were then incubated in 1x PBS/10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab76416, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit IgG (H+L) (**ab96899**) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit monoclonal IgG (1µg/1x$10^6$ cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HepG2 cells fixed with 4% paraformaldehyde/permeabilized in 0.1% PBS-Triton used under the same conditions.

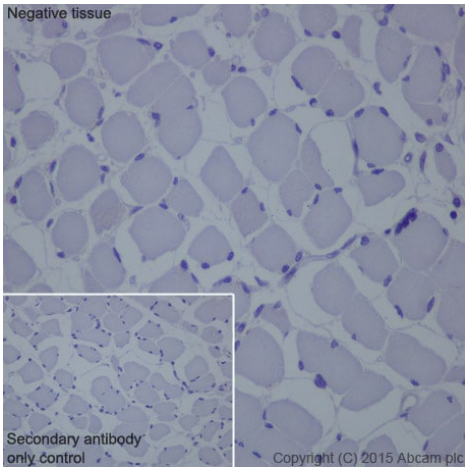



Flow Cytometry (Intracellular) - Anti-Cytokeratin 16/K16 antibody [EP1615Y] (ab76416)

ab76416 staining Cytokeratin 16/K16 in HACAT (human keratinocyte) cell lineby intracellular flow cytometry. Cells were fixed with 4% paraformaldehyde and the sample was incubated with the primary antibody at a dilution of 1/150. A goat anti rabbit IgG (Alexa Fluor® 488) at a dilution of 1/500 was used as the secondary antibody.

Isoytype control: Rabbit monoclonal IgG (Black)

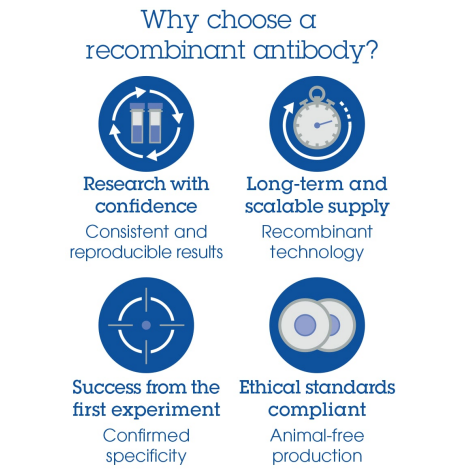
Unlabelled control: Cell without incubation with primary antibody and secondary antibody (Blue)




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cytokeratin 16/K16 antibody [EP1615Y] (ab76416)

ab76416 staining Cytokeratin 16/K16 in human skeletal muscle sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and antigen retrieval was by heat mediation in a EDTA buffer. Samples were incubated with primary antibody at a dilution of 1/500. A goat anti-rabbit IgG H&L (HRP) **ab97051** was used as the secondary antibody at a dilution of 1/500.

**Negative control 1:** PBS in place of primary antibody.




Anti-Cytokeratin 16/K16 antibody [EP1615Y] (ab76416)

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

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