

## Product datasheet

### Anti-Keratin 12/K12 antibody [EPR17882] ab185627

Recombinant RabMAb

★★★★★ 1 Abreviews 27 References 6 Images

#### Overview

Product name	Anti-Keratin 12/K12 antibody [EPR17882]
Description	Rabbit monoclonal [EPR17882] to Keratin 12/K12
Host species	Rabbit
Tested applications	<b>Suitable for:</b> ICC/IF, WB, IHC-P
Species reactivity	<b>Reacts with:</b> Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: Keratin 12/K12 transfected HEK-293 whole cell lysate; Mouse and rat eyeball lysates. IHC-P: Mouse and rat cornea tissues. ICC/IF: Keratin 12/K12 transfected HeLa cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> <li>- High batch-to-batch consistency and reproducibility</li> <li>- Improved sensitivity and specificity</li> <li>- Long-term security of supply</li> <li>- Animal-free production</li> </ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

#### 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 long term. Avoid freeze / thaw cycle.
Storage buffer	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR17882
Isotype	IgG

## Applications

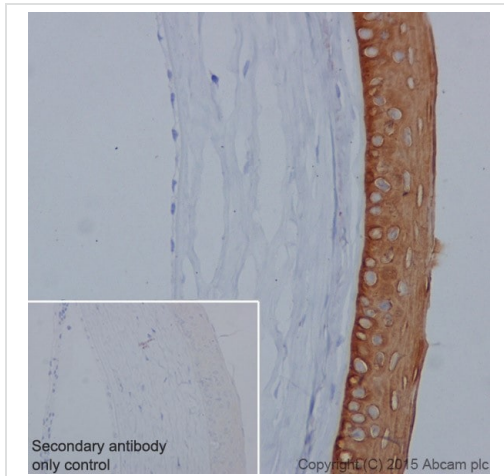
**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab185627 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		1/50.
WB		1/5000. Detects a band of approximately 54 kDa (predicted molecular weight: 54 kDa).
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. Tested in mouse and rat.

## Target

<b>Function</b>	May play a unique role in maintaining the normal corneal epithelial function. Together with KRT3, essential for the maintenance of corneal epithelium integrity.
<b>Tissue specificity</b>	Cornea specific.
<b>Involvement in disease</b>	Defects in KRT12 are a cause of Meesmann corneal dystrophy (MECD) [MIM:122100]; also abbreviated MCD and known as juvenile epithelial corneal dystrophy of Meesmann. MECD is an autosomal dominant disease that causes fragility of the anterior corneal epithelium. Patients are usually asymptomatic until adulthood when rupture of the corneal microcysts may cause erosions, producing clinical symptoms such as photophobia, contact lens intolerance and intermittent diminution of visual acuity. Rarely, subepithelial scarring causes irregular corneal astigmatism and permanent visual impairment. Histological examination shows a disorganized and thickened epithelium with widespread cytoplasmic vacuolation and numerous small, round, debris-laden intraepithelial cysts.
<b>Sequence similarities</b>	Belongs to the intermediate filament family.

## Images

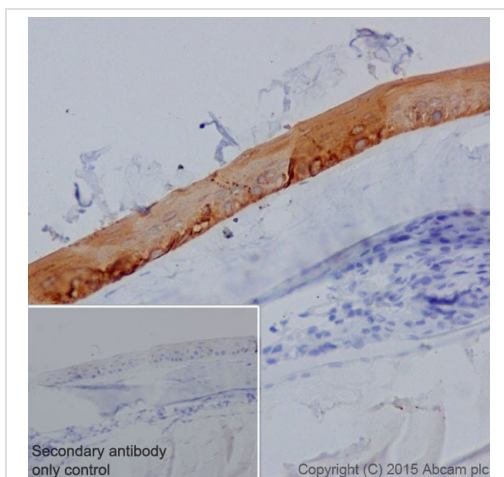


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Keratin 12/K12 antibody [EPR17882] (ab185627)

Immunohistochemical analysis of paraffin-embedded Mouse cornea tissue labeling Keratin 12/K12 with ab185627 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasmic staining on the mouse corneal epithelium is observed. 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.

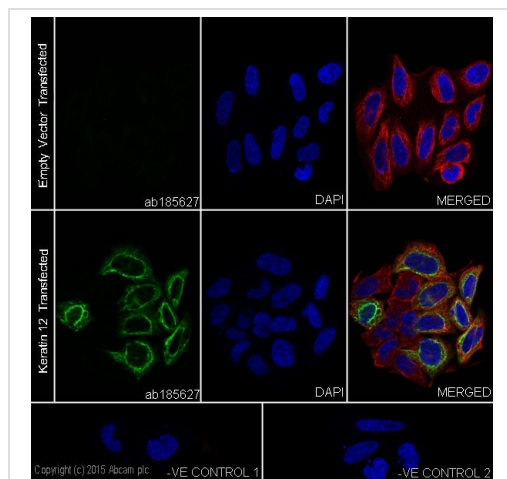


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Keratin 12/K12 antibody [EPR17882] (ab185627)

Immunohistochemical analysis of paraffin-embedded Rat cornea tissue labeling Keratin 12/K12 with ab185627 at 1/100 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/500 dilution. Cytoplasmic staining on the rat corneal epithelium is observed. 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.



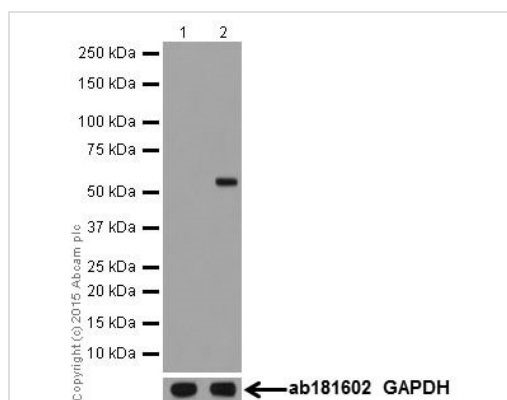
Immunocytochemistry/ Immunofluorescence - Anti-Keratin 12/K12 antibody [EPR17882] (ab185627)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling Keratin 12/K12 with ab185627 at 1/50 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing no staining on HeLa cell line. The expression increased after transfection of Keratin 12/K12. The nuclear counterstain is DAPI (blue). Tubulin is detected with [ab7291](#) (anti-Tubulin mouse mAb) at 1/1000 dilution and [ab150120](#) (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution (red).

The negative controls are as follows:-

-ve control 1: ab185627 at 1/50 dilution followed by [ab150120](#) (AlexaFluor®594 Goat anti-Mouse secondary) at 1/1000 dilution.

-ve control 2: [ab7291](#) (anti-Tubulin mouse mAb) at 1/1000 dilution followed by [ab150077](#) (Alexa Fluor®488 Goat Anti-Rabbit IgG H&L) at 1/1000 dilution.



Western blot - Anti-Keratin 12/K12 antibody [EPR17882] (ab185627)

**All lanes :** Anti-Keratin 12/K12 antibody [EPR17882] (ab185627) at 1/100000 dilution

**Lane 1 :** Empty vector (vector control) transfected HEK-293 (Human epithelial cells from embryonic kidney) whole cell lysate

**Lane 2 :** Keratin 12/K12 transfected HEK-293 whole cell lysate

Lysates/proteins at 10 µg per lane.

### Secondary

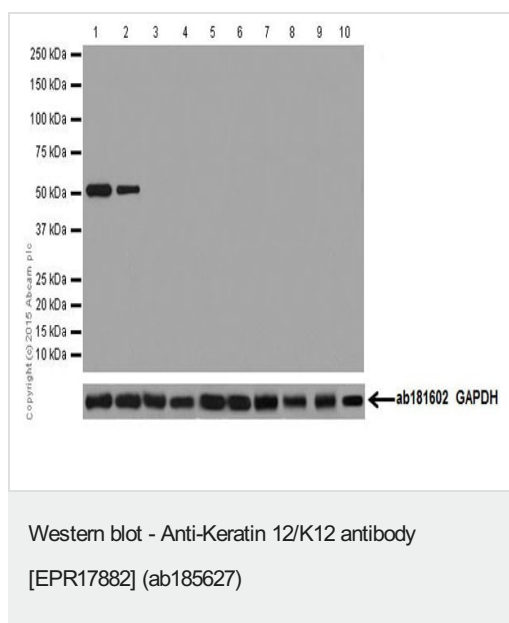
**All lanes :** Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

**Predicted band size:** 54 kDa

**Observed band size:** 54 kDa

**Exposure time:** 5 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.



**All lanes** : Anti-Keratin 12/K12 antibody [EPR17882] (ab185627) at 1/5000 dilution

**Lane 1** : Mouse eyeball lysate

**Lane 2** : Rat eyeball lysate

**Lane 3** : HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate

**Lane 4** : Y79 (Human retinoblastoma cell line) whole cell lysate

**Lane 5** : C6 (Rat glial tumor cells) whole cell lysate

**Lane 6** : PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysate

**Lane 7** : Rat brain lysate

**Lane 8** : Rat heart lysate

**Lane 9** : Rat kidney lysate

**Lane 10** : Rat spleen lysate

Lysates/proteins at 10 µg per lane.

## Secondary

**All lanes** : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

**Predicted band size:** 54 kDa

**Observed band size:** 54 kDa

**Exposure time:** 10 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

Keratin 12/K12 is expressed specifically in corneal epithelium (Am J Hum Genet. 1997. 61, 1268–1275).

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-Keratin 12/K12 antibody [EPR17882]  
(ab185627)

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

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