abcam

Product datasheet

Anti-gamma Catenin antibody [EPR17310] ab184919

KO VALIDATED Recombinant RabMAb

1 Abreviews 8 References 14 Images

Overview

Product name	Anti-gamma Catenin antibody [EPR17310]
Description	Rabbit monoclonal [EPR17310] to gamma Catenin
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, Flow Cyt (Intra)
Species reactivity	**Reacts with:** Mouse, Rat, Dog, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HEK-293T, HeLa, A431 and MDCK whole cell lysates; Mouse skin, rat skin, Human fetal heart, fetal kidney and fetal skin lysates. IHC-P: Human skin and prostatic hyperplasia, Mouse stomach and Rat skin tissues. ICC/IF: HeLa and MDCK cells.
General notes	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**.

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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR17310

Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab184919 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
WB		1/1000. Detects a band of approximately 82 kDa (predicted molecular weight: 82 kDa).
IHC-P	★★★★☆ (1)	1/4000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/250.
Flow Cyt (Intra)		1/1000.

Target

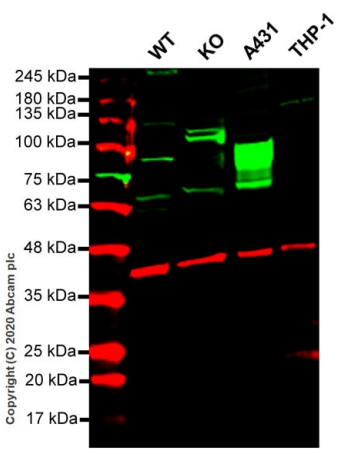
Function Common junctional plaque protein. The membrane-associated plaques are architectural elements in an important strategic position to influence the arrangement and function of both the cytoskeleton and the cells within the tissue. The presence of plakoglobin in both the desmosomes and in the intermediate junctions suggests that it plays a central role in the structure and function of submembranous plaques. Acts as a substrate for VE-PTP and is required by it to stimulate VE-cadherin function in endothelial cells. Can replace beta-catenin in E-cadherin/catenin adhesion complexes which are proposed to couple cadherins to the actin cytoskeleton.

Involvement in disease Defects in JUP are the cause of Naxos disease (NXD) [MIM:601214]. NXD is an autosomal recessive disorder combining diffuse non-epidermolytic palmoplantar keratoderma with arrhythmogenic right ventricular dysplasia/cardiomyopathy and woolly hair.
Defects in JUP are the cause of familial arrhythmogenic right ventricular dysplasia type 12 (ARVD12) [MIM:611528]; also called arrhythmogenic right ventricular cardiomyopathy 12 (ARVC12). ARVD is an autosomal dominant disease characterized by partial degeneration of the myocardium of the right ventricle, electrical instability, and sudden death. It is clinically defined by electrocardiographic and angiographic criteria; pathologic findings, replacement of ventricular myocardium with fatty and fibrous elements, preferentially involve the right ventricular free wall.

Sequence similarities Belongs to the beta-catenin family.
Contains 9 ARM repeats.

Cellular localization Cell junction > adherens junction. Cell junction > desmosome. Cytoplasm > cytoskeleton. Membrane. Cytoplasmic in a soluble and membrane-associated form.

Images



Western blot - Anti-gamma Catenin antibody [EPR17310] (ab184919)

All lanes : Anti-gamma Catenin antibody [EPR17310] (ab184919) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T cell lysate
Lane 2 : JUZ knockout HEK-293T cell lysate
Lane 3 : A431 cell lysate
Lane 4 : THP-1 cell lysate

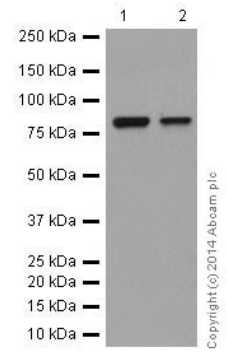
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 82 kDa
Observed band size: 82 kDa

Lanes 1-4: Merged signal (red and green). Green - ab184919 observed at 82 kDa. Red - loading control, **ab8245** observed at 37 kDa.

ab184919 Anti-gamma Catenin antibody [EPR17310] was shown to specifically react with gamma Catenin in wild-type HEK293T cells. Loss of signal was observed when knockout cell line **ab266272** (knockout cell lysate **ab257269**) was used. Wild-type and gamma Catenin knockout samples were subjected to SDS-PAGE. ab184919 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-gamma Catenin antibody [EPR17310] (ab184919)

All lanes : Anti-gamma Catenin antibody [EPR17310] (ab184919) at 1/1000 dilution

Lane 1 : Human fetal heart lysates
Lane 2 : Human fetal kidney lysates

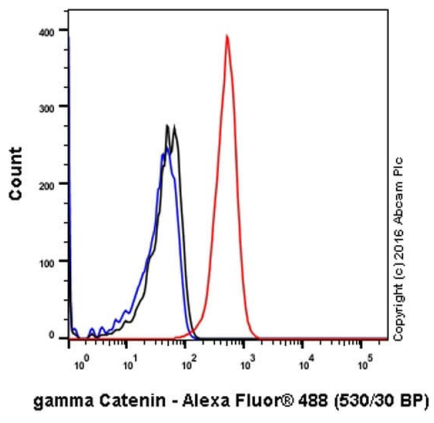
Lysates/proteins at 10 µg per lane.

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

Predicted band size: 82 kDa
Observed band size: 82 kDa

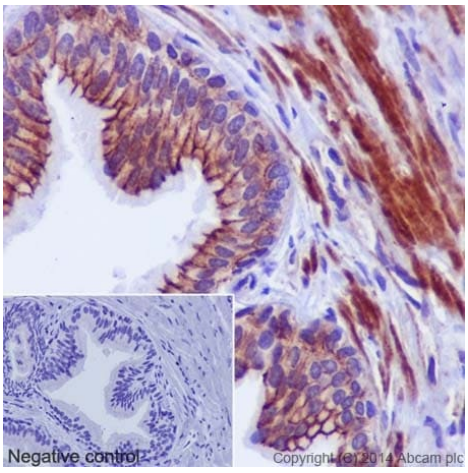
Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time = 15 seconds



Flow Cytometry (Intracellular) - Anti-gamma Catenin antibody [EPR17310] (ab184919)

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) labelling gamma Catenin with purified ab184919 at 1/1000 (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Alexa Fluor® 488 goat anti-rabbit IgG (1/2000) was used as the secondary antibody. Black - Isotype control, rabbit monoclonal IgG. Blue - Unlabelled control, cells without incubation with primary and secondary antibodies.

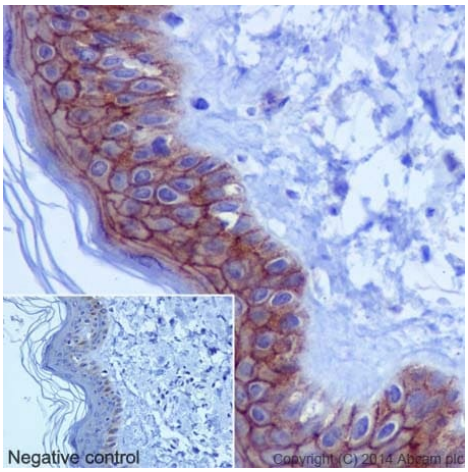


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-gamma Catenin antibody [EPR17310] (ab184919)

Immunohistochemical analysis of paraffin-embedded Human prostatic hyperplasia tissue labeling gamma Catenin with ab184919 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution. Cytoplasmic and membrane staining on epithelial cells of Human prostate is observed; and smooth muscle cells are also positively stained. Counterstained with Hematoxylin.

Negative 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.

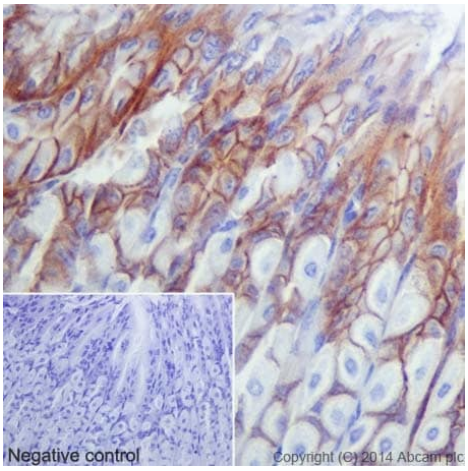


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-gamma Catenin antibody [EPR17310] (ab184919)

Immunohistochemical analysis of paraffin-embedded Human skin tissue labeling gamma Catenin with ab184919 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution. Cytoplasmic and membrane staining on epithelial cells of Human skin is observed. Counterstained with Hematoxylin.

Negative 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.

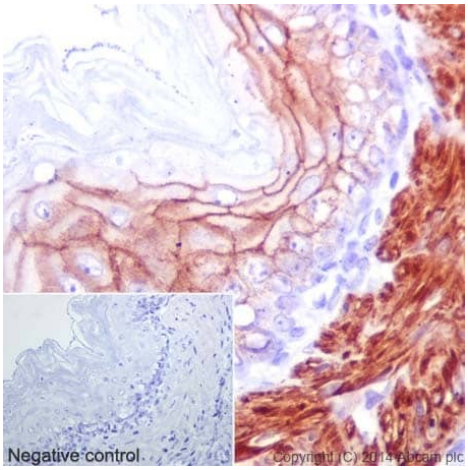


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-gamma Catenin antibody [EPR17310] (ab184919)

Immunohistochemical analysis of paraffin-embedded mouse stomach tissue labeling gamma Catenin with ab184919 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution. Cytoplasmic and membrane staining on epithelial cells of mouse stomach is observed. Counterstained with Hematoxylin.

Negative 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.

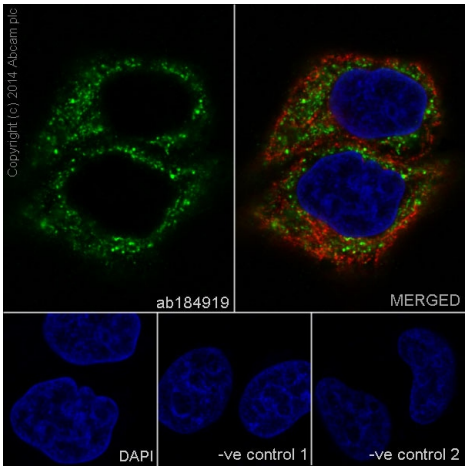


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-gamma Catenin antibody [EPR17310] (ab184919)

Immunohistochemical analysis of paraffin-embedded rat skin tissue labeling gamma Catenin with ab184919 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) secondary antibody at 1/500 dilution. Membrane and cytoplasmic staining on the epithelial cells of rat skin is observed; and smooth muscle cells are also positively stained. Counterstained with Hematoxylin.

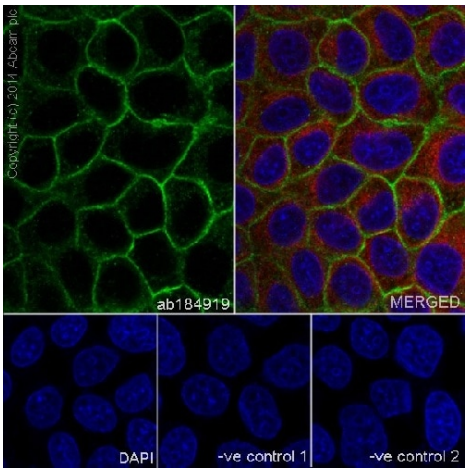
Negative control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/500 dilution.

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



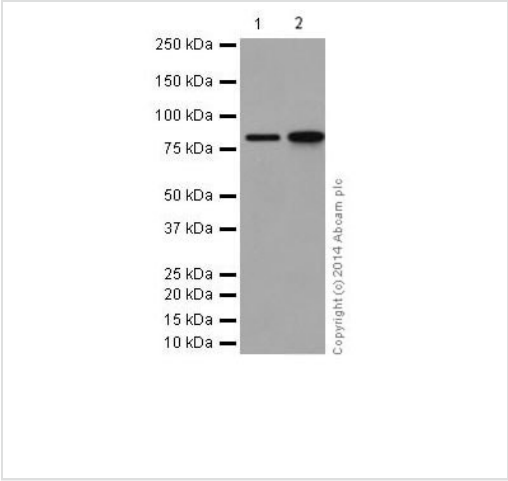
Immunocytochemistry/ Immunofluorescence - Anti-gamma Catenin antibody [EPR17310] (ab184919)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (Human epithelial cells from cervix adenocarcinoma) cells labeling gamma Catenin with ab184919 at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/500 dilution (green). Confocal image showing cytoplasmic staining on HeLa cells. The nuclear counter stain 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 1/500 dilution (red).
The negative controls are as follows:
-ve control 1: ab184919 at 1/250 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 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 1/500 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-gamma Catenin antibody [EPR17310] (ab184919)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized MDCK (Canine kidney cell line) cells labeling gamma Catenin with ab184919 at 1/250 dilution, followed by Goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) secondary antibody at 1/500 dilution (green). Confocal image showing membranous staining on MDCK cells. The nuclear counter stain 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 1/500 dilution (red).
The negative controls are as follows:
-ve control 1: ab184919 at 1/250 dilution followed by **ab150120** (AlexaFluor®594 Goat anti-Mouse secondary) at 1/500 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 1/500 dilution.



Western blot - Anti-gamma Catenin antibody [EPR17310] (ab184919)

All lanes : Anti-gamma Catenin antibody [EPR17310] (ab184919) at 1/10000 dilution

Lane 1 : Human fetal skin lysates
Lane 2 : A431 (Human epidermoid carcinoma) whole cell lysates

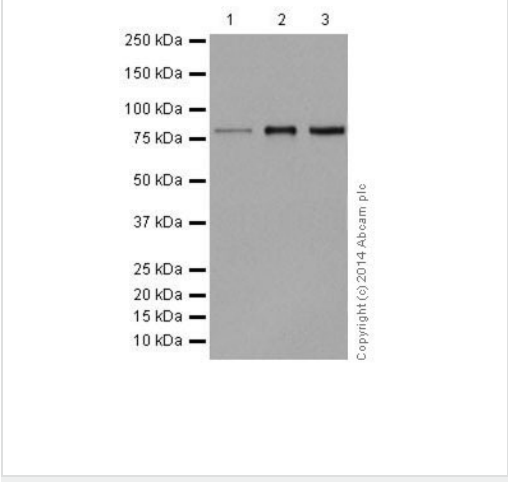
Lysates/proteins at 10 µg per lane.

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

Predicted band size: 82 kDa
Observed band size: 82 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time = 3 seconds



Western blot - Anti-gamma Catenin antibody [EPR17310] (ab184919)

All lanes : Anti-gamma Catenin antibody [EPR17310] (ab184919) at 1/1000 dilution

Lane 1 : Hela (Human epithelial cells from cervix adenocarcinoma) whole cell lysates
Lane 2 : Mouse skin lysates
Lane 3 : Rat skin lysates

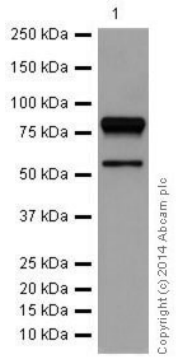
Lysates/proteins at 20 µg per lane.

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

Predicted band size: 82 kDa
Observed band size: 82 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure time = 5 seconds



Western blot - Anti-gamma Catenin antibody [EPR17310] (ab184919)

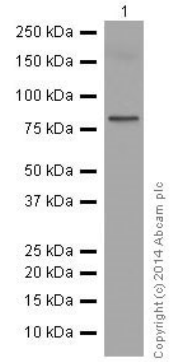
Anti-gamma Catenin antibody [EPR17310] (ab184919) at 1/1000 dilution + HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysates at 20 µg

Secondary
Mouse monoclonal to cardiac Troponin I (**ab1000**) (Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated)

Predicted band size: 82 kDa
Observed band size: 82 kDa

Blocking and diluting buffer and concentration = 5% NFDM/TBST

Exposure time = 3 minutes



Western blot - Anti-gamma Catenin antibody [EPR17310] (ab184919)

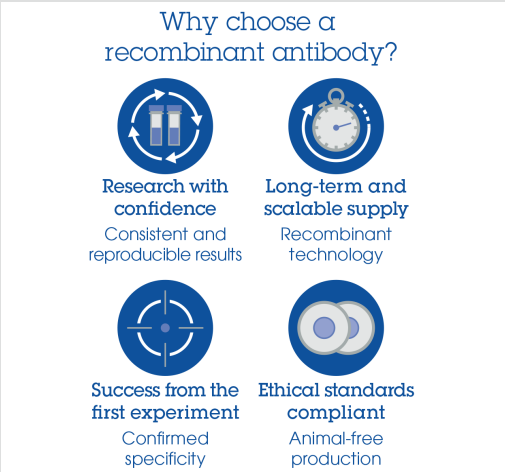
Anti-gamma Catenin antibody [EPR17310] (ab184919) at 1/100000 dilution + MDCK (Canine kidney cell line) whole cell lysate at 10 µg

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

Predicted band size: 82 kDa
Observed band size: 82 kDa

Exposure time: 1 minute

Blocking and Diluting buffer and concentration: 5% NFDM/TBST



Anti-gamma Catenin antibody [EPR17310]

(ab184919)

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