abcam

ab251317

Anti-gamma Catenin antibody [EPR17310-48] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR17310-48
Purification technique	Affinity purification Protein A
Concentration	0.956 - 1.037 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-

Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Target data

See full target information JUP

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 (By similarity). May promote axon outgrowth and motor fiber repair via DSP-mediated recruitment to outgrowth tips (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab251317 is the carrier-free version of ab200661.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility

This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Gamma Catenin also known as Junction Plakoglobin (JUP) is a protein with a molecular mass of approximately 82 kDa. It plays an important role in cell adhesion mechanisms. This protein is expressed widely in various tissue types prominently in epithelial tissues. Gamma Catenin contributes significantly to the

	structure of adherens junctions and desmosomes physically connecting cells to one another and stabilizing those connections within tissues.
Biological function summary	Gamma Catenin is an integral component of the armadillo family of proteins and part of desmosomal and adherens junction complexes. It plays an essential role in maintaining the integrity and mechanical strength of tissues. Through interacting with other proteins in these complexes gamma Catenin facilitates cell signaling and communication. It associates with cadherins and catenins including plakophilin and β-catenin to ensure proper cell-cell adhesion and signaling across the cell membrane.
Pathways	Gamma Catenin is involved in the Wnt signaling pathway an important route governing cellular processes such as proliferation differentiation and migration. Gamma Catenin interacts with β-catenin in this pathway influencing transcriptional regulation in the nucleus. It also plays roles in the cadherin-mediated cell adhesion pathway working alongside other proteins like E-cadherin to modulate cell behavior. These pathways highlight its importance in cellular architecture and signaling.
Associated diseases and disorders	Alterations in gamma Catenin expression or function relate to conditions such as heart diseases specifically arrhythmogenic right ventricular cardiomyopathy and cancer particularly affecting epithelial tissues. In these conditions abnormal gamma Catenin interactions with other junction proteins like desmoplakin and plakophilin contribute to disease progression. These disruptions suggest its potential as a therapeutic target providing insight into disease mechanisms and opportunities for intervention.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

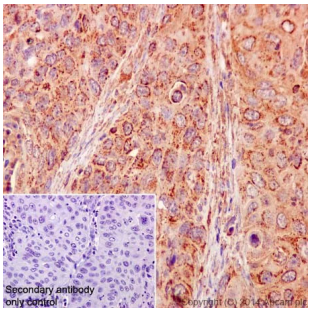
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

7 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-gamma Catenin antibody [EPR17310-48] - BSA and Azide free (ab251317)

Gamma Catenin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-gamma Catenin antibody

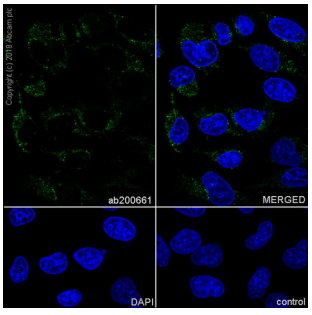
This data was developed using ab200661, the same antibody clone in a different buffer formulation.
Immunohistochemical analysis of paraffin-embedded Human cervix carcinoma tissue labeling gamma Catenin with ab200661 at 1/200 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution.

Cytoplasm staining on Human cervix carcinoma tissue 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.

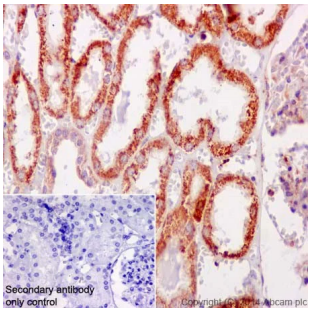
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-gamma Catenin antibody [EPR17310-48] - BSA and Azide free (ab251317)

Gamma Catenin Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-gamma Catenin antibody

This data was developed using the same antibody clone in a different buffer formulation (ab200661).
Immunocytochemistry analysis of Hela (Human cervix adenocarcinoma epithelial cell) labeling gamma Catenin with purified ab200661 at 1/400 dilution. Cells were fixed with 100% methanol. Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/1000 (2 µg/ml) was used as the secondary antibody. was used as counterstain. Nuclei were stained blue with DAPI.
Negative control: PBS instead of the primary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-gamma Catenin antibody [EPR17310-48] - BSA and Azide free (ab251317)

Gamma Catenin Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-gamma Catenin antibody

This data was developed using ab200661, the same antibody clone in a different buffer formulation.

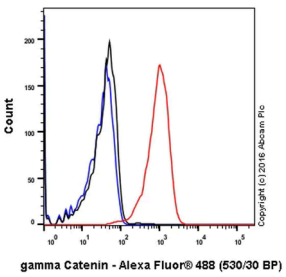
Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling gamma Catenin with ab200661 at 1/200 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) (ab97051) secondary antibody at 1/500 dilution.

Cytoplasm staining on Human kidney tissue 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.

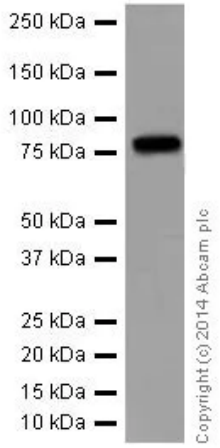
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-gamma Catenin antibody [EPR17310-48] - BSA and Azide free (ab251317)

Gamma Catenin Flow Cytometry (Intracellular) staining using rabbit Anti-gamma Catenin antibody

This data was developed using ab200661, the same antibody clone in a different buffer formulation.
Intracellular Flow Cytometry analysis of HeLa cells labelling gamma Catenin (red) with purified ab200661at dilution of 1/40. The secondary antibody used was Alexa Fluor® 488 goat-anti-rabbit IgG (1/2000). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. Isotype control antibody was Rabbit monoclonal IgG (black). The blue line shows cells without incubation with primary antibody and secondary antibody.



Western blot - Anti-gamma Catenin antibody [EPR17310-48] - BSA and Azide free (ab251317)

Gamma Catenin Western blot staining of Human fetal skin lysates using rabbit Anti-gamma Catenin antibody

This data was developed using ab200661, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-gamma Catenin antibody [EPR17310-48] (ab200661) at 1/5000 dilution

All lanes:
Human fetal skin lysates at 10 µg

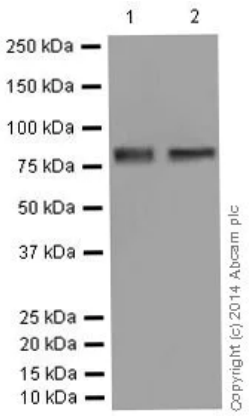
Secondary

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

Exposure time: 5s



Western blot - Anti-gamma Catenin antibody [EPR17310-48] - BSA and Azide free (ab251317)

This data was developed using ab200661, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-gamma Catenin antibody [EPR17310-48] (ab200661) at 1/5000 dilution

Lane 1:
HeLa (Human epithelial cells from cervix adenocarcinoma) whole cell lysate at 10 µg

Lane 2:
T-47D (Human ductal breast epithelial tumor cell line) whole cell lysate at 10 µg

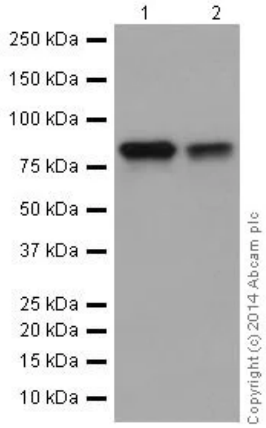
Secondary

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

Predicted band size: 82 kDa

Observed band size: 82 kDa

Exposure time: 5s



Western blot - Anti-gamma Catenin antibody [EPR17310-48] - BSA and Azide free (ab251317)

Gamma Catenin Western blot staining using rabbit Anti-gamma Catenin antibody

This data was developed using ab200661, the same antibody clone in a different buffer formulation.
Blocking and dilution buffer: 5% NFDM/TBST.

All lanes:
Western blot - Anti-gamma Catenin antibody [EPR17310-48] (ab200661) at 1/20000 dilution

Lane 1:
Human fetal heart lysates at 10 µg

Lane 2:
Human fetal kidney lysates at 10 µg

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

Exposure time: 3min

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.