

Anti-Cadherin 16 antibody [EPR13090]

Recombinant

RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR13090
Purification technique	Affinity purification Protein A
Concentration	1.808 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/40 - 1/60
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000 - 1/10000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/4000 - 1/8000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/4000 - 1/8000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

Function Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

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

Supplementary info

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

Activity summary Cadherin 16 also known as Ksp-cadherin is a calcium-dependent cell adhesion protein. It plays a role in mediating homophilic cell-cell adhesion facilitating the binding between identical cadherins on neighboring cells. The mass of cadherin 16 is approximately 92 kDa. This protein is mainly expressed in the kidney specifically in the distal convoluted tubules and collecting ducts where it is localized to the basolateral membrane of tubular epithelial cells.

Biological function summary

Cadherin 16 contributes to cell sorting and tissue morphogenesis. It does not operate as part of a multi-protein complex but interacts with the actin cytoskeleton through catenins like β -catenin to maintain cell adhesion and tissue integrity. The particular expression pattern of cadherin 16 suggests that it has a role in maintaining the structural organization of renal tissues and possibly influences renal tubular epithelial homeostasis.

Pathways

Cadherin 16 participates in cell signaling pathways essential for cell adhesion and tissue architecture. Specifically it engages in the Wnt signaling pathway where it coordinates with proteins like β -catenin indicating its indirect role in signal transduction that may affect gene transcription regarding cell growth and differentiation. Another key interaction for cadherin 16 is with integrins which are pivotal in mediating attachments between the extracellular matrix and the cell.

Associated diseases and disorders

Cadherin 16 is linked to renal-related conditions such as renal cell carcinoma and polycystic kidney disease. Abnormal expression or dysfunction of cadherin 16 could disrupt cell adhesion promoting renal cell carcinoma by facilitating cell detachment and metastatic progression. Additionally it connects with proteins like E-cadherin which are involved in epithelial-to-mesenchymal transition (EMT) a process often activated in cancer development and progression.

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

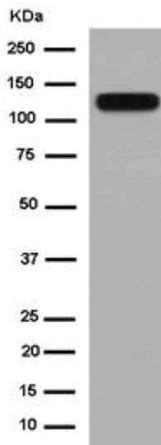
We do not recommend this combination. It is not covered by our product promise.

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.](#)

4 product images



Western blot - Anti-Cadherin 16 antibody [EPR13090] (ab183745)

All lanes:
Western blot - Anti-Cadherin 16 antibody [EPR13090] (ab183745) at 1/10000 dilution

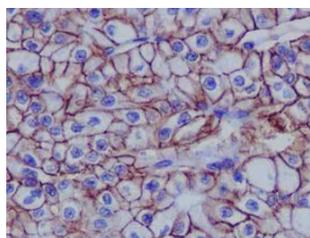
All lanes:
Human fetal kidney lysate at 10 µg

Secondary

All lanes:
Goat anti-rabbit IgG, (H+L), peroxidase conjugate at 1/1000 dilution

Predicted band size: 90 kDa

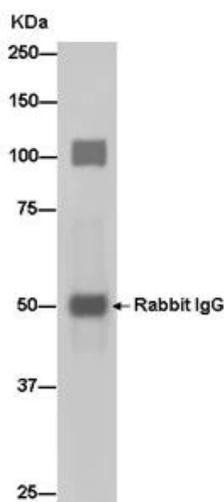
Observed band size: 130 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cadherin 16 antibody [EPR13090] (ab183745)

Immunohistochemical analysis of paraffin-embedded Human chromophobe renal cell carcinoma tissue labeling Cadherin 16 with ab183745 at 1/4000 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



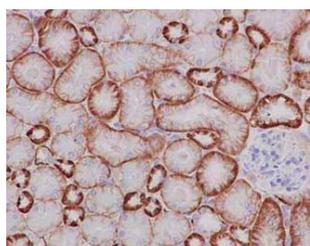
Immunoprecipitation - Anti-Cadherin 16 antibody [EPR13090] (ab183745)

Western blot analysis of Cadherin 16 in Human fetal kidney lysate immunoprecipitated using ab183745 at 1/50 dilution.

Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugate at 1/1000 dilution.

All lanes:
Immunoprecipitation - Anti-Cadherin 16 antibody [EPR13090] (ab183745)

Predicted band size: 90 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cadherin 16 antibody [EPR13090] (ab183745)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling Cadherin 16 with ab183745 at 1/4000 dilution followed by prediluted HRP Polymer for Rabbit IgG. Counter stained with hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

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