abcam

ab213652

Anti-Cadherin 9 antibody [EPR5113] - 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	EPR5113
Purification technique	Affinity purification Protein A
Dissociation constant	2.4 x 10^{-11} M
Concentration	0.973 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Not recommended

Species	Mouse, Human, Rat

Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse, Human
Dilution info	-
Notes	-

Predicted

Species	Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human

Dilution info	-
Notes	-

Expected

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

Predicted

Species	Rat
Dilution info	-
Notes	-

Target data

See full target information CDH9

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 conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab213652 is the carrier-free version of ab124803.

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	Cadherin-9 also known as CDH9 is a classical cadherin protein with a critical role in cell adhesion. This protein has a molecular mass of approximately 130 kDa. Cadherin-9 is part of the cadherin superfamily characterized by calcium-dependent cell-cell adhesion. It is expressed in neural tissues particularly within the brain where it facilitates neuron-neuron adhesion by forming adherens junctions. This adhesive function is essential for maintaining proper cellular architecture in tissues.
Biological function summary	Cadherin-9 contributes to the establishment and maintenance of cell-cell junctions. It is not part of a complex but associates strongly with other cadherin proteins maintaining tissue structure and signaling within cadherin-mediated junctions. The protein's adhesive properties are critical to neural development where it influences axonal guidance synapse formation and the stabilization of neuronal circuits. This role ensures accurate neural connectivity essential for proper brain functioning.
Pathways	The role of Cadherin-9 connects to key signaling pathways involving Wnt and calcium-dependent pathways. Within these pathways Cadherin-9 interacts with proteins like beta-catenin which links to the intracellular domain of cadherins at cell junctions and is involved in signal transduction. The interaction of Cadherin-9 within these pathways implicates it in the regulation of cellular activities like differentiation proliferation and cell polarity which are necessary for proper tissue development and homeostasis.

Associated diseases and disorders	Cadherin-9 shows association with neurodevelopmental disorders such as autism and intellectual disabilities. In these conditions abnormal Cadherin-9 expression or function affects neuronal connectivity and synaptic stability. The protein also relates to the protein neuroligin which plays a role in synapse formation and is implicated in autism spectrum disorders. The Cadherin-9 and neuroligin interaction suggests pathways where disrupted cell adhesion and signaling impact neural circuitry formation and cognitive development.

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

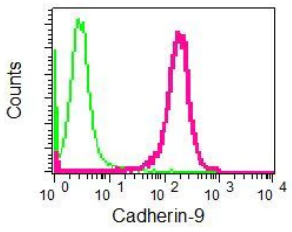
We do not recommend this combination. It is not covered by our product promise.

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.

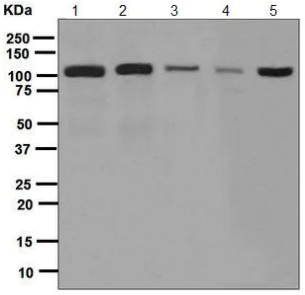
3 product images



Flow Cytometry (Intracellular) - Anti-Cadherin 9 antibody [EPR5113] - BSA and Azide free (ab213652)

Cadherin 9 Flow Cytometry (Intracellular) staining using rabbit Anti-Cadherin 9 antibody

This data was developed using ab124803, the same antibody clone in a different buffer formulation.
Intracellular flow cytometric analysis of permeabilized 293T cells using ab124803 at 1/100 dilution (red) or a rabbit IgG (negative) (green).



Western blot - Anti-Cadherin 9 antibody [EPR5113] - BSA and Azide free (ab213652)

Cadherin 9 Western blot staining using rabbit Anti-Cadherin 9 antibody

This data was developed using ab124803, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Cadherin 9 antibody [EPR5113] (ab124803) at 1/1000 dilution

Lane 1:
293T (Human embryonic kidney epithelial cell) cell lysate at 10 µg

Lane 2:
U-87 MG (Human glioblastoma-astrocytoma epithelial cell line) cell lysate at 10 µg

Lane 3:
Human testis lysate at 10 µg

Lane 4:
NIH/3T3 cell lysate at 10 µg

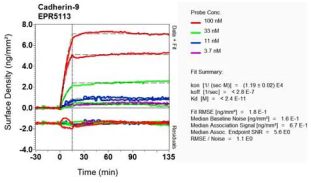
Lane 5:
Caco-2 cell lysate at 10 µg

Secondary

All lanes:
HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 88 kDa

Observed band size: 110 kDa



OI-RD Scanning - Anti-Cadherin 9 antibody [EPR5113] - BSA and Azide free (ab213652)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

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