abcam

ab189298

Anti-Nectin 2 antibody [EPR6717] - 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	EPR6717
Purification technique	Affinity purification Protein A
Specificity	This antibody does not recognize Isoform Alpha of human Nectin-2.
Dissociation constant	5.3 x 10^{-11} M
Concentration	0.998 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Mouse, Rat, Human

Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Expected

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

Target data

See full target information NECTIN2

Function	Modulator of T-cell signaling. Can be either a costimulator of T-cell function, or a coinhibitor, depending on the receptor it binds to. Upon binding to CD226, stimulates T-cell proliferation and cytokine production, including that of IL2, IL5, IL10, IL13, and IFNG. Upon interaction with PVRIG, inhibits T-cell proliferation. These interactions are competitive (PubMed:26755705). Probable cell adhesion protein (PubMed:9657005). (Microbial infection) Acts as a receptor for herpes simplex virus 1 (HHV-1) mutant Rid1, herpes simplex virus 1 (HHV-2) and pseudorabies virus (PRV).

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

ab189298 is the carrier-free version of ab135246.

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	Nectin 2 also known as CD112 is a transmembrane cell adhesion molecule belonging to the immunoglobulin superfamily. It plays a critical role in mediating cell-cell adhesion by forming homophilic and heterophilic interactions with other nectins. The protein has a mass of approximately 65 kDa and shows high expression in epithelial and endothelial cells. Nectin 2 has been identified in various tissues including the skin lung and kidney reflecting its importance in maintaining tissue integrity.
Biological function summary	Nectin 2 facilitates cell adhesion and communication playing an important role in the formation of adherens junctions. It serves as part of a larger biological complex with proteins such as afadin linking it to the actin cytoskeleton. Through these interactions Nectin 2 influences the signaling pathways that regulate tissue development and maintenance. Its ability to bind herpes virus entry mediator A (HVEM) further demonstrates its function in viral entry highlighting its diverse biological roles.
Pathways	Nectin 2 participates in the cell adhesion and immune response pathways. It works closely with Nectin 1 and Cadherins within these pathways to mediate cell-cell

	junction formation and signaling. The interaction of Nectin 2 with intracellular proteins like afadin facilitates its role in the immunological synapse a critical zone for immune cell signaling. These pathways highlight its significance in both maintaining cellular architecture and modulating immune responses.
Associated diseases and disorders	Nectin 2 relates to cancer and viral infections. Its altered expression or dysfunction has links with tumor progression and metastasis particularly in epithelial-origin cancers like colorectal cancer. Through its role as a herpesvirus entry receptor it also connects to herpes simplex virus (HSV) infections. The interactions between Nectin 2 and other nectins such as Nectin 3 may affect cell proliferation and viral entry expanding the understanding of its involvement in disease mechanisms.

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

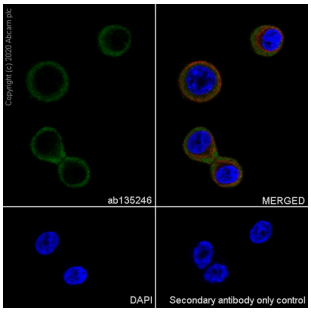
We do not recommend this combination. It is not covered by our product promise.

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.

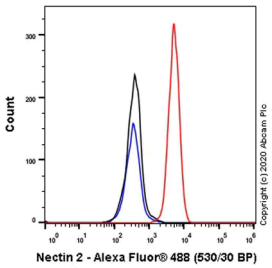
6 product images



Immunocytochemistry/ Immunofluorescence - Anti-Nectin 2 antibody [EPR6717] - BSA and Azide free (ab189298)

Nectin 2 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Nectin 2 antibody

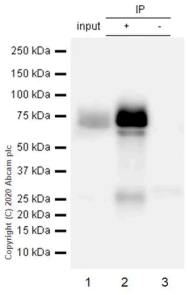
This data was developed using ab135246, the same antibody clone in a different buffer formulation.
Immunocytochemistry analysis of HT-29 (Human colorectal adenocarcinoma epithelial cell) cells labeling Nectin 2 with Purified ab189298 at 1:50 dilution (3.06 µg/ml). Cells were fixed in 4% Paraformaldehyde and permeabilized with 0.1% tritonX-100. Cells were counterstained with ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI (blue) was used as nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.



Flow Cytometry (Intracellular) - Anti-Nectin 2 antibody [EPR6717] - BSA and Azide free (ab189298)

Nectin 2 Flow Cytometry (Intracellular) staining using rabbit Anti-Nectin 2 antibody

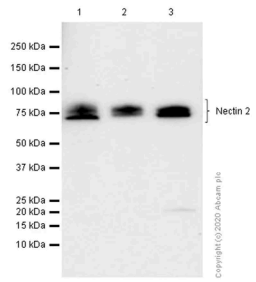
This data was developed using ab135246, the same antibody clone in a different buffer formulation.Intracellular Flow Cytometry analysis of HUVEC (Human umbilical vein endothelial cell) cells labeling Nectin 2 with Purified ab189298 at 1/20 dilution (10µg/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluorr® 488, ab150077) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Immunoprecipitation - Anti-Nectin 2 antibody [EPR6717] - BSA and Azide free (ab189298)

This data was developed using ab135246, the same antibody clone in a different buffer formulation.
Purified ab135246 at 1/20 dilution (1µg) immunoprecipitating Nectin 2 in SW480 whole cell lysate.
Lane 1 (input): SW480 (Human colorectal adenocarcinoma epithelial cell) whole cell lysate 10µg
Lane 2 (+): ab135246 + SW480 whole cell lysate.
Lane 3 (-): Rabbit monoclonal IgG (ab172730) instead of ab135246 in SW480 whole cell lysate.
VeriBlot for IP Detection Reagent (HRP) (ab131366) (1/1000 dilution) was used for Western blotting.
Blocking Buffer and concentration: 5% NFDM/TBST.
Diluting buffer and concentration: 5% NFDM/TBST.
Observed band size: 70-85 kDa
All lanes:
Immunoprecipitation - Anti-Nectin 2 antibody [EPR6717] (ab135246)

Predicted band size: 58 kDa



Western blot - Anti-Nectin 2 antibody [EPR6717] - BSA and Azide free (ab189298)

Nectin 2 Western blot staining using rabbit Anti-Nectin 2 antibody

This data was developed using ab135246, the same antibody clone in a different buffer formulation.
The molecular weight observed is consistent with what has been described in the literature (PMID: 15108322, PMID:12445825 and PMID:12913096).

Blocking Buffer and concentration: 5% NFDM/TBST

All lanes:
Western blot - Anti-Nectin 2 antibody [EPR6717] (ab135246) at 1/1000 dilution

Lane 1:
HT-29 (Human colorectal adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
Mouse brain lysate at 20 µg

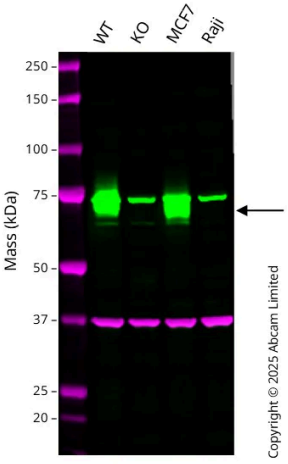
Lane 3:
Rat brain lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 58 kDa

Observed band size: 70-85 kDa



Western blot - Anti-Nectin 2 antibody [EPR6717] - BSA and Azide free (ab189298)

Nectin 2 Western blot staining using rabbit Anti-Nectin 2 antibody

This data was developed using ab135246, the same antibody clone in a different buffer formulation.

Western blot: Anti-Nectin 2 antibody [EPR6717] ab135246 staining at 1/1000 dilution, shown in green; Mouse anti GAPDH ab8245 loading control staining at 1/20000 dilution, shown in magenta. A band was observed at 64-75 kDa in Wild-type A549 UNBOILED cell lysates with no signal observed at this size in NECTIN2 knockout A549 UNBOILED cell line. To generate this image, samples were run on an SDS-PAGE gel then transferred onto a nitrocellulose membrane. Membranes were blocked in 5pc Milk in TBS-0.1 % Tween® 20 (TBS-T) before incubation with primary antibodies overnight at 4 °C. Blots were washed four times in TBS-T, incubated with secondary antibodies for 1 h at room temperature, washed again four times then imaged. Secondary antibodies used were Goat anti-Rabbit 800CW and Goat anti-Mouse 680RD at 1/20,000 dilution.
All lanes:
Western blot - Anti-Nectin 2 antibody [EPR6717] (ab135246) at 1/1000 dilution

Lane 1:
Wild-type A549 UNBOILED at 20 µg

Lane 2:
Western blot - Human NECTIN2 knockout A549 cell line (ab288906) at 20 µg

Lane 2:
NECTIN2 knockout A549 UNBOILED cell line

Lane 3:
MCF7 UNBOILED at 20 µg

Lane 4:
Raji UNBOILED at 20 µg

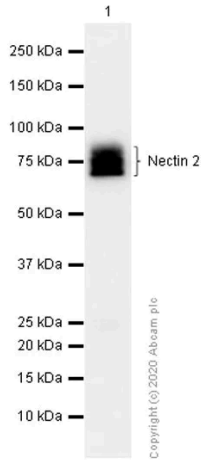
Secondary

All lanes:
Goat anti-Rabbit 800CW & Goat anti-Mouse 680RD at 1/20000 dilution

Performed under reducing conditions.

Predicted band size: 58 kDa

Observed band size: 64-75 kDa, 37 kDa



Western blot - Anti-Nectin 2 antibody [EPR6717] - BSA and Azide free (ab189298)

This data was developed using ab135246, the same antibody clone in a different buffer formulation.
The molecular weight observed is consistent with what has been described in the literature (PMID: 15108322, PMID:12445825 and PMID:12913096).

Blocking Buffer and concentration: 5% NFDM/TBST

All lanes:
Western blot - Anti-Nectin 2 antibody [EPR6717] (ab135246) at 1/1000 dilution

All lanes:
SW480 (Human colorectal adenocarcinoma epithelial cell) whole cell lysate at 15 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 58 kDa

Observed band size: 70-85 kDa

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