abcam

ab229021

Anti-OX40/CD134 antibody [EPR22229-5]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: 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	EPR22229-5
Purification technique	Affinity purification Protein A
Concentration	0.55 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Rat
Dilution info	1/30
Notes	-

Expected

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

Flow Cyt

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Species	Rat
Dilution info	1/500
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

ICC/IF

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Target data

See full target information OX40/CD134

Function	Receptor for TNFSF4/OX40L/GP34. Is a costimulatory molecule implicated in long-term T-cell immunity (By similarity).

Storage

Shipped at conditions	Conditional Ambient
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

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.

Supplementary info

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

Activity summary	CD134 also known as OX40 or TNFRSF4 is a receptor that plays an essential role in immune response regulation. This receptor is part of the tumor necrosis factor receptor (TNFR) superfamily and has a molecular mass of approximately 50 kDa. CD134 is expressed on activated T cells particularly CD4+ T cells and is present on various other immune cells under specific conditions. The receptor binds to the OX40L its ligand which is expressed on antigen-presenting cells such as dendritic cells and B cells.
Biological function summary	CD134 influences T cell proliferation survival and memory formation being an important component of the immune system's adaptive response. OX40L engagement with CD134 enhances the activation and survival of T cells promoting long-term immunity. This interaction does not form part of a larger complex but functions as a direct signaling mechanism that augments T cell receptor (TCR) signaling leading to increased cytokine production and sustained immune responses essential for controlling infections and cancer.
Pathways	CD134 signaling intersects with the nuclear factor-kappa B (NF-κB) and phosphoinositide 3-kinase (PI3K) pathways. These pathways play significant roles in regulating immune responses and cell survival. Through the NF-κB pathway CD134 influences gene transcription related to immune activation. It also connects with other immune regulatory proteins such as CD28 which further potentiates T cell responses and enhances effector functions.
Associated diseases and disorders	CD134 has connections to autoimmune diseases and cancers. Overactivity of the CD134-OX40L pathway can lead to exacerbated autoimmune conditions such as lupus. This receptor has also been implicated in tumor immunity where its activation enhances the anti-tumor response of T cells. CD134 interacts with CTLA-

4 another immune checkpoint protein playing a role in balancing immune activation and regulation within these disease contexts.

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

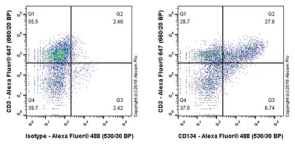
We do not recommend this combination. It is not covered by our product promise.

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.

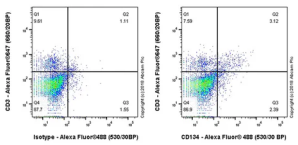
6 product images



Flow Cytometry - Anti-OX40/CD134 antibody [EPR22229-5] (ab229021)

OX40/CD134 Flow Cytometry staining using rabbit Anti-OX40/CD134 antibody

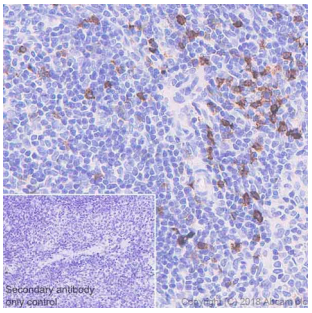
Flow cytometric analysis of rat primary splenocytes treated with 2.5µg/ml concanavalin A for 72h labeling CD134 / OX40L with ab229021 at 1/500 dilution (Right) compared to cells stained with Alexa Fluor® 647-conjugated CD3 and rabbit IgG (Left). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at 1/2000 dilution.
Data shown were gated on viable cells.



Flow Cytometry - Anti-OX40/CD134 antibody [EPR22229-5] (ab229021)

OX40/CD134 Flow Cytometry staining using rabbit Anti-OX40/CD134 antibody

Flow cytometric analysis of mouse primary splenocytes treated with 2.5µg/ml concanavalin A for 72h labeling CD134 / OX40L with ab229021 at 1/500 dilution (Right) compared to cells stained with Alexa Fluor® 647-conjugated CD3 and rabbit IgG (Left). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) was used as the secondary antibody at 1/2000 dilution.
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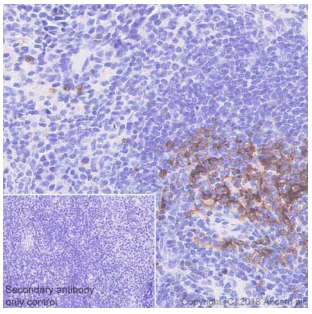
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-OX40/CD134 antibody [EPR22229-5] (ab229021)

OX40/CD134 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-OX40/CD134 antibody

Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling CD134 / OX40L using ab229021 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on T cells in rat spleen (PMID: 15259024; PMID: 10233901). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins.

The section was incubated with ab229021 for 10 mins at 37☒. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument.



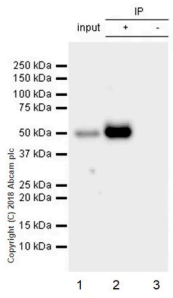
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OX40/CD134 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-OX40/CD134 antibody

Immunohistochemical analysis of paraffin-embedded mouse spleen tissue labeling CD134 / OX40L using ab229021 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Positive staining on T cells in periarterial lymphatic sheath of mouse spleen (PMID: 15259024; PMID: 10233901). Counterstained with Hematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 10mins.

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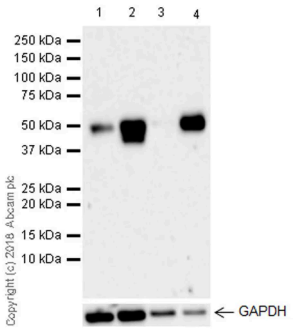
Immunoprecipitation - Anti-OX40/CD134 antibody [EPR22229-5] (ab229021)

CD134 / OX40L was immunoprecipitated from 0.35 mg rat splenocytes treated with 2.5µg/ml concanavalin A for 72h lysate using ab229021 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab229021 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at a 1/5000 dilution.
Lane 1: Rat splenocytes treated with 2.5µg/ml concanavalin A for 72h lysate 10 µg (input)
Lane 2: ab229021 IP in Rat splenocytes treated with 2.5µg/ml concanavalin A for 72h lysate.
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab229021 in Rat splenocytes treated with 2.5µg/ml concanavalin A for 72h lysate.

Blocking and dilution buffer and concentration: 5% NFDM/TBST.
Exposure time: 20 seconds.

All lanes:
Immunoprecipitation - Anti-OX40/CD134 antibody [EPR22229-5] (ab229021)

Predicted band size: 29 kDa



Western blot - Anti-OX40/CD134 antibody [EPR22229-5] (ab229021)

OX40/CD134 Western blot staining using rabbit Anti-OX40/CD134 antibody

Blocking/Diluting buffer and concentration: 5% NFDM/TBST
CD134 / OX40L is a glycosylated protein and its expression is increased after concanavalin A treatment. PMID 23897980; PMID 17609274

All lanes:
Western blot - Anti-OX40/CD134 antibody [EPR22229-5] (ab229021) at 1/1000 dilution

Lane 1:
Untreated mouse splenocytes lysate at 20 µg

Lane 2:
Mouse splenocytes treated with 2.5ug/ml concanavalin A for 72h lysate at 20 µg

Lane 3:
Untreated rat splenocytes lysate at 20 µg

Lane 4:
Rat splenocytes treated with 2.5ug/ml concanavalin A for 72h lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 29 kDa

Observed band size: 50 kDa

Exposure time: 3min

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