abcam

ab264466

Anti-OX40/CD134 antibody [EPR23000-42]

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	EPR23000-42
Purification technique	Affinity purification Protein A
Concentration	0.592 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

IHC-P

Tested

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

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. (Microbial infection) Acts as a receptor for human herpesvirus 6B/HHV-6B.

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

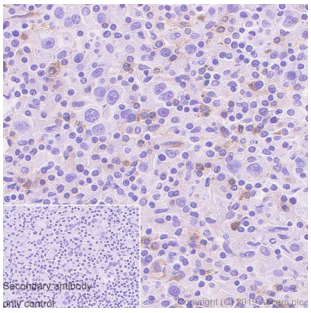
We do not recommend this combination. It is not covered by our product promise.

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.

8 product images

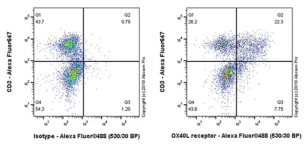


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

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

Immunohistochemical analysis of paraffin-embedded human Hodgkin's lymphoma tissue labeling CD134 / OX40L receptor with ab264466 at 1/4000 dilution (0.13 ug/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining on human Hodgkin's lymphoma (PMID/8547142). Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

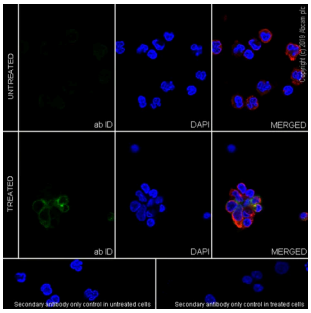
Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



Flow Cytometry (Intracellular) - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

OX40/CD134 Flow Cytometry (Intracellular) staining using rabbit Anti-OX40/CD134 antibody

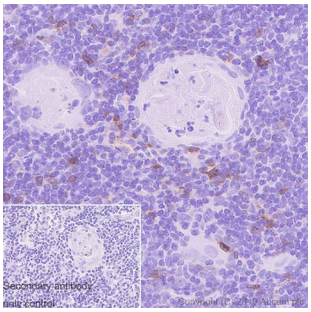
Intracellular flow cytometric analysis of 2% Paraformaldehyde fixed, 0.1% Tween-20 permeabilized Human peripheral blood mononuclear cell (PBMC) treated with 10 µg/ml phytohemagglutinin (PHA) for 2days labelling CD132 / OX40L receptor with ab264466 at 1/500 dilution 9Right) (Red) compared with a Rabbit monoclonal IgG (ab172730) control (Left). A Goat anti rabbit IgG (Alexa Fluor® 488, ab150077) at 1/2000 dilution was used as the secondary antibody.
Cells were surface stained with anti-CD3 conjugated to Alexa Fluor® 647. Then fixed with 2% PFA followed by intracellularly stained with rabbit IgG (Left) or ab264466 (Right). (PMID: 9108415, 17609274).



Immunocytochemistry/ Immunofluorescence - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

OX40/CD134 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-OX40/CD134 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized human PBMCs labelling CD34 / OX40L with ab264466 at 1/50 (10 ug/ml) dilution, followed by ab150077 AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 (2 ug/ml) dilution (Green). Confocal image showing positive staining in human PBMC treated with phytohaemagglutinin (PHA) (10 µg/ml for 2 days) (PMID: 9108415). ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (Red). The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Secondary antibody is ab150077 AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 ug/ml) dilution.

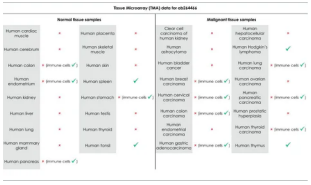


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

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

Immunohistochemical analysis of paraffin-embedded human thymus tissue labeling CD134 / OX40L with ab264466 at 1/4000 dilution (0.13 ug/ml) followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining on T cells of human thymus (PMID/8547142). Counterstained with Hematoxylin.
Secondary antibody only control/ Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

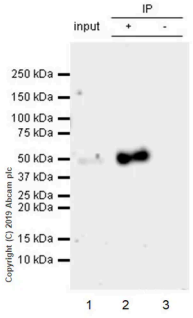
Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

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

Tissue Microarrays stained for "Anti-CD134 / OX40L receptor antibody [EPR23000-42]" using "ab264466"in immunohistochemical analysis. This table provides a detailed overview of positive (tick mark) and negative (cross mark) staining per sample type tested. The sections were pre-treated using Heat mediated antigen retrieval using ab93684 (Tris/EDTA buffer, pH 9.0). The sections were incubated with ab264466 at +4°C overnight followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP polymer).



Immunoprecipitation - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

CD134 / OX40L receptor was immunoprecipitated from 0.35 mg Human thymus lysate with ab264466 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab264466 at 1/500 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used at 1/1000 dilution.
Lane 1: Human thymus lysate 10ug

Lane 2: ab264466 IP in Human thymus lysate

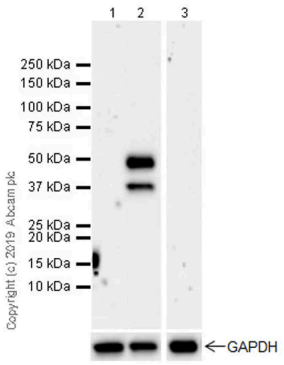
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab264466 in Human thymus lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 min

All lanes:
Immunoprecipitation - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

Predicted band size: 29 kDa



Western blot - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

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

Blocking and dilution buffer: 5% NFDM/TBST.
Exposure time: 37 seconds.

The expression profile and molecular weight observed is consistent with what has been described in the literature (PMID:9108415,23897980).

Negative control: Jurkat (PMID:9108415).

All lanes:
Western blot - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466) at 1/1000 dilution

Lane 1:
Untreated human PBMC, whole cell lysate at 20 µg

Lane 2:
Human PBMC treated with 10 µg/ml phytohaemagglutinin (PHA) for 2 days, whole cell lysate at 20 µg

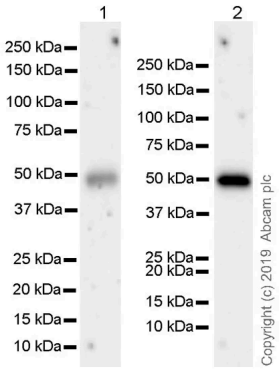
Lane 3:
Jurkat (human T cell leukemia T lymphocyte), whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/500 dilution

Predicted band size: 29 kDa

Observed band size: 37 kDa, 50 kDa



Western blot - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466)

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

Blocking and dilution buffer: 5% NFDM/TBST.
Exposure time: 3 minutes.

This blot was developed using a higher sensitivity ECL substrate.

The molecular weight observed is consistent with what has been described in the literature (PMID:9108415, 23897980).

All lanes:
Western blot - Anti-OX40/CD134 antibody [EPR23000-42] (ab264466) at 1/1000 dilution

Lane 1:
Human thymus tissue lysate at 10 µg

Lane 2:
Human lymph node at 10 µg

Secondary

All lanes:
Western blot - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/1000 dilution

Predicted band size: 29 kDa

Observed band size: 50 kDa

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