abcam

ab320846

Anti-LTBR antibody [RM2069] - 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	Multiclonal
Immunogens	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	RM2069
Purification technique	Affinity purification Protein A
Specificity	unsuitable for mouse ICC

Reactivity data

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Ltbr

Function	Receptor for the heterotrimeric lymphotoxin containing LTA and LTB, and for TNFS14/LIGHT. Activates NF-kappa-B signaling upon stimulation with lymphotoxin. Promotes apoptosis via TRAF3 and TRAF5. May play a role in the development of lymphoid organs. (Microbial infection) Plays a role in host defense against Zika virus infection.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab320846 is the carrier-free version of ab320845.

What are recombinant multiclonals?
Recombinant multiclonals are a mixture of recombinant antibodies co-expressed from a library of heavy and light chains. They offer several advantages including:

- The sensitivity of polyclonal antibodies by recognising multiple epitopes
- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

View our range of recombinant multiclonal antibodies.

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.

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	LTBR (lymphotoxin beta receptor) also known as the TNFRSF3 is a significant protein that functions as a receptor for lymphotoxin and other related cytokines. The protein has a mass of around 62 kDa and is expressed in various tissues including lymphoid tissues and the epithelial cells of several organs. LTBR is present as a membrane-bound protein and helps mediate signaling that is important for cellular communication and function. Key interactions with ligands such as LTA and LIGHT activate signaling pathways which play roles in immune response.
Biological function summary	LTBR coordinates multiple cellular processes especially in immune regulation and homeostasis. It forms a complex with cytokines that binds to its extracellular domain triggering downstream signaling cascades. These cascades lead to activation of nuclear factor kappa B (NF-kB) which controls gene transcription and promotes survival and differentiation of immune cells. The capability of LTBR to interact with other TNF receptors expands its influence in lymphoid organogenesis and maintenance especially in maintaining the integrity of the lymphoid system.
Pathways	LTBR significantly participates in both the NF-kB and the non-canonical NF-kB pathways. These pathways are essential for regulating immune response and inflammation. Within these pathways LTBR interacts with other proteins such as TRAF3 and TRAF2 to mediate signaling processes. This arrangement allows for modulation of immune responses and is critical for recognizing and eliminating pathogens. Additionally the involvement of LTBR in immune system pathways aligns it with the functions of closely related proteins like TNF receptor superfamily members.
Associated diseases and disorders	LTBR has been implicated in autoimmune diseases and cancer. In autoimmunity aberrant signaling through LTBR may lead to inappropriate immune responses and inflammation as seen in disorders like systemic lupus erythematosus. Moreover in oncology abnormalities in LTBR signaling can influence tumor microenvironments and support tumor cell survival. Throughout these disease contexts LTBR often interacts with other risk-associated proteins such as NFKB1 highlighting its integration in complex pathological processes.

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.

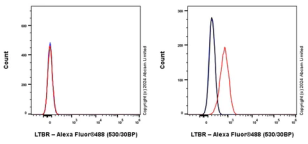
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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3 product images



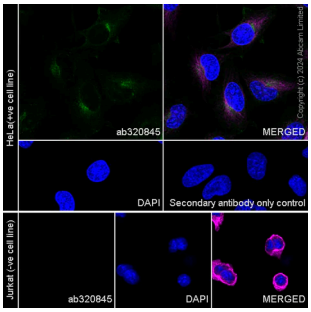
Flow Cytometry - Anti-LTBR antibody [RM2069] - BSA and Azide free (ab320846)

This data was developed using ab320845, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of HeLa (human cervical adenocarcinoma epithelial cell, Right) / Jurkat (human T cell leukemia T lymphocyte from peripheral blood, Left) cells labelling LTBR with ab320845 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: Jurkat. (PMID: 10200501)



Immunocytochemistry/ Immunofluorescence - Anti-LTBR antibody [RM2069] - BSA and Azide free (ab320846)

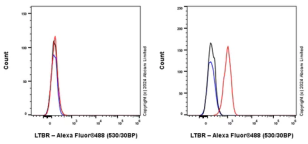
This data was developed using ab320845, the same antibody clone in a different buffer formulation.

Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling LTBR with ab320845 at 1/50 (10.02 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 2 ug/ml dilution (Green).

Confocal image showing cytoplasmic staining in HeLa cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue).
Negative control: Jurkat (PMID: 10200501).
Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/ml dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 2 ug/ml dilution.



Flow Cytometry - Anti-LTBR antibody [RM2069] - BSA and Azide free (ab320846)

This data was developed using ab320845, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of EL4 (mouse lymphoma T lymphocyte, Left) / NIH/3T3 (mouse embryonic fibroblast, Right) cells labelling LTBR with ab320845 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: EL4

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