abcam

ab309133

Anti-LTBR antibody [EPR26097-53]

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	EPR26097-53
Purification technique	Affinity purification Protein A
Specificity	This antibody detects transfected levels of LTBR in western blot.
Concentration	0.508 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/50
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat, Transfected cell lysate - Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Transfected cell lysate - 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 (PubMed:24248355). Activates NF-kappa-B signaling pathway upon stimulation with lymphotoxin (LTA(1)-LTB(2)) (PubMed:24248355). Promotes apoptosis via TRAF3 and TRAF5. May play a role in the development of lymphoid organs.

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	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.

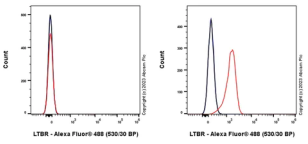
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

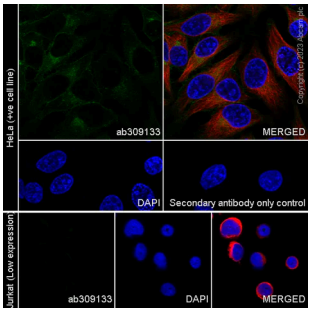
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3 product images



Flow Cytometry - Anti-LTBR antibody [EPR26097-53] (ab309133)

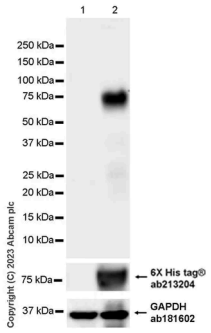
Flow cytometric analysis of Jurkat (human T cell leukemia T lymphocyte from peripheral blood, Left) / HeLa (human cervical adenocarcinoma epithelial cell, Right) cells labeling LTBR with ab309133 at 1/500 dilution (0.1 ug)/Red compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody. Low expression: Jurkat (PMID: 10200501). Gated on viable cells.



Immunocytochemistry/ Immunofluorescence - Anti-LTBR antibody [EPR26097-53] (ab309133)

Immunofluorescent analysis of 100% methanol-fixed, 0.1% TritonX-100 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labeling LTBR with ab309133 at 1/50 (10.16 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 membranous and cytoplasmic staining in HeLa cell line.Low expression: Jurkat (PMID: 10200501).The image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). ab195889 was used to counterstain tubulin at 1/200 2.5 dilution (Red). 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.



Western blot - Anti-LTBR antibody [EPR26097-53] (ab309133)

Blocking and diluting buffer and concentration: 5% NFDM/TBST This antibody detects transfected levels of LTBR in western blot. In Western blot, anti-His antibody (ab213204) staining at 1/5000 dilution. In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution.
All lanes:
Western blot - Anti-LTBR antibody [EPR26097-53] (ab309133) at 1/1000 dilution

Lane 1:
293T cells transfected with an empty vector containi a His-tag whole cell lysate

Lane 2:
293T cells transfected with a human LTBR expression vector containi a His-tag whole cell lysate at 20 µg

Secondary

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

Observed band size: 75 kDa

Exposure time: 10s

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