abcam

ab303541

Anti-CD272/BTLA antibody [EPR25380-391] - 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	EPR25380-391
Purification technique	Affinity purification Protein A
Concentration	1.016 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

Target data

See full target information BTLA

Function	Inhibitory receptor on lymphocytes that negatively regulates antigen receptor signaling via PTPN6/SHP-1 and PTPN11/SHP-2 (PubMed:12796776, PubMed:14652006, PubMed:15568026, PubMed:18193050). May interact in cis (on the same cell) or in trans (on other cells) with TNFRSF14 (PubMed:19915044). In cis interactions, appears to play an immune regulatory role inhibiting in trans interactions in naive T cells to maintain a resting state. In trans interactions, can predominate during adaptive immune response to provide survival signals to effector T cells (PubMed:19915044).

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

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	CD272 also known as BTLA (B and T Lymphocyte Attenuator) is an immunoregulatory protein with a mass approximately 34 kDa. This target is part of the CD28 immunoglobulin superfamily and is expressed on the surfaces of various immune cells including T cells B cells and dendritic cells. BTLA/CD272 serves as a co-inhibitory molecule important in maintaining immune homeostasis. Its expression is influenced by factors present in the microenvironment of immune tissues.
Biological function summary	BTLA functions as a negative regulator of immune responses by delivering inhibitory signals to immune cells upon binding to its ligand HVEM (Herpesvirus entry mediator). It forms a part of an immunological checkpoint complex that modulates lymphocyte activity to prevent overactivation and autoimmunity. This mechanism helps maintain a balance between immune defense and tolerance contributing to self-tolerance.
Pathways	The BTLA/CD272 protein engages with pathways involved in immune checkpoints and T-cell receptor signaling. It interacts with proteins like HVEM and collaborates with receptors such as PD-1 and CTLA-4. These interactions play a role in the downregulation of T-cell responses which is essential in various immune processes. The signaling pathways influenced by BTLA/CD272 are integral in moderating immune responses cooperation and adaptation.
Associated diseases and disorders	BTLA is associated with autoimmune diseases and cancer. In autoimmune disorders an altered expression or function of BTLA can lead to dysregulated immune responses causing tissue damage. In cancer the protein may contribute to immune evasion by tumors aiding tumor growth and progression. The interplay of BTLA with proteins such as PD-1 makes it a potential target for immunotherapy strategies in oncology and autoimmunity treatments.

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.

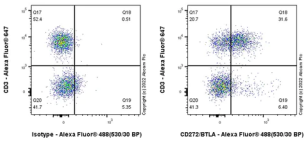
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

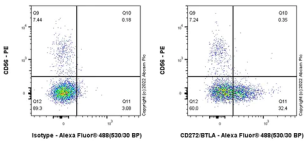
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2 product images



Flow Cytometry - Anti-CD272/BTLA antibody [EPR25380-391] - BSA and Azide free (ab303541)

This data was developed using ab303540, the same antibody clone in a different buffer formulation.Flow cytometric analysis of / fixed / permeabilized Human peripheral blood mononuclear cell (PBMC) cells labelling CD272/BTLA with ab303540 at 1/500 dilution (0.1ug)/ Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Cells were stained with rabbit IgG or ab303540. Then stained with anti-CD3 conjugated to Alexa Fluor® 647. Gated on viable cells.



Flow Cytometry - Anti-CD272/BTLA antibody [EPR25380-391] - BSA and Azide free (ab303541)

This data was developed using ab303540, the same antibody clone in a different buffer formulation.Flow cytometric analysis of / fixed / permeabilized Human peripheral blood mononuclear cell (PBMC) cells labelling CD272/BTLA with ab303540 at 1/500 dilution (0.1ug)/ Right (Red) compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Negative control: NK cells.Cells were stained with rabbit IgG or ab303540. Then stained with anti-CD56 conjugated to PE. Gated on viable cells.

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