

## PE anti-human CD272 (BTLA) Antibody

<b>Catalog# / Size</b>	344505 / 25 tests 344506 / 100 tests
<b>Clone</b>	MIH26
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	BTLA, B and T lymphocyte attenuator
<b>Isotype</b>	Mouse IgG2a, $\kappa$
<b>Description</b>	B and T lymphocyte attenuator (BTLA) is an Ig superfamily coinhibitory receptor with structural similarity to programmed cell death 1 (PD-1) and CTLA-4. BTLA is expressed on B cells, T cells, macrophages, dendritic cells, NKT cells, and NK cells. Engagement of BTLA by its ligand Herpes Virus Entry Mediator (HVEM) is critical for negatively regulating immune response. The absence of BTLA with HVEM inhibitory interactions leads to increased experimental autoimmune encephalomyelitis severity, enhanced rejection of partially mismatched allografts, an increased CD8 <sup>+</sup> memory T cell population, increased severity of colitis, and reduced effectiveness of T regulatory cells. BTLA plays an important role in the induction of peripheral tolerance of both CD4 <sup>+</sup> and CD8 <sup>+</sup> T cells <i>in vivo</i> . Tolerant T cells have significant up-regulated expression of BTLA compared with effector and naïve T cells. BTLA may cooperate with CTLA-4 and PD-1 to control T cell tolerance and autoimmunity. It has been reported that BTLA may regulate T cell function through binding to B7-H4.

### Product Details

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<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human BTLA transfected cells
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a> -
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 $\mu$ l per million cells in 100 $\mu$ l staining volume or 5 $\mu$ l per 100 $\mu$ l of whole blood.
<b>Excitation Laser</b>	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: inhibition of T cell proliferation and cytokine production <sup>1</sup> . Clone MIH26 has agonistic activity on BTLA, resulting in the inhibition of activation.  The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/ $\mu$ g, Azide-Free, 0.2 $\mu$ m filtered) is recommended for use in <i>in vitro</i> and <i>in vivo</i> biofunctional assays.
<b>Application References</b>	1. Otsuki N, <i>et al.</i> 2006. <i>Biochem. Bioph. Res. Co.</i> 344:1121.

(PubMed link indicates BioLegend citation)

2. Okano M, *et al.* 2008. *Clin. Exp. Allergy* 38:1891.

#### Product Citations

1. Wei F, *et al.* 2013. *Proc Natl Acad Sci U S A.* 110:2480. [PubMed](#)
2. Xu X, *et al.* 2020. *J Cell Biol.* 219:00:00. [PubMed](#)
3. Jutz S, *et al.* 2016. *J Immunol Methods.* 430:10-20. [PubMed](#)
4. Xu X, *et al.* 2021. *Elife.* 10:. [PubMed](#)
5. Ohue Y, *et al.* 2014. *Clin Cancer Res.* 20:5052. [PubMed](#)
6. Bziat V, *et al.* 2021. *Cell.* . [PubMed](#)
7. Zhang S, *et al.* 2021. *Nat Commun.* 12:2877. [PubMed](#)
8. Ye Z, *et al.* 2016. *Sci Rep.* 6:20401. [PubMed](#)

#### RRID

AB\_2043945 (BioLegend Cat. No. 344505)  
AB\_2065761 (BioLegend Cat. No. 344506)

## Antigen Details

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<b>Structure</b>	Ig superfamily, with similar structure to CTLA-4 and PD-1
<b>Distribution</b>	B cells and T lymphocytes, NK cells and dendritic cells
<b>Function</b>	Negative regulation of T cell activation, proliferation and cytokine production
<b>Ligand/Receptor</b>	HVEM
<b>Cell Type</b>	B cells, Dendritic cells, NK cells, T cells, Tregs
<b>Biology Area</b>	Immunology, Inhibitory Molecules
<b>Molecular Family</b>	CD Molecules
<b>Antigen References</b>	<ol style="list-style-type: none"><li>1. Watanabe N, <i>et al.</i> 2003. <i>Nat. Immunol.</i> 4:670.</li><li>2. Sun Y, <i>et al.</i> 2009. <i>J. Immunol.</i> 183:1946.</li><li>3. Gonzalez LC, <i>et al.</i> 2005. <i>P. Natl. Acad. Sci. USA</i> 102:1116.</li></ol>
<b>Gene ID</b>	<a href="#">151888</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

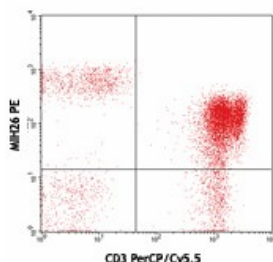
## Other Formats

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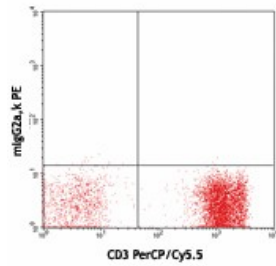
Purified anti-human CD272 (BTLA), PE anti-human CD272 (BTLA), APC anti-human CD272 (BTLA), Brilliant Violet 421™ anti-human CD272 (BTLA), PerCP/Cyanine5.5 anti-human CD272 (BTLA), APC/Cyanine7 anti-human CD272 (BTLA), PE/Cyanine7 anti-human CD272 (BTLA), Alexa Fluor® 647 anti-human CD272 (BTLA), PE/Dazzle™ 594 anti-human CD272 (BTLA), FITC anti-human CD272 (BTLA), TotalSeq™-A0170 anti-human CD272 (BTLA), TotalSeq™-C0170 anti-human CD272 (BTLA), Ultra-LEAF™ Purified anti-human CD272 (BTLA), PE/Cyanine5 anti-human CD272 (BTLA), TotalSeq™-B0170 anti-human CD272 (BTLA), TotalSeq™-D0170 anti-human CD272 (BTLA)

## Product Data

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Human peripheral blood lymphocytes stained with CD3 (UCHT1) PerCP/Cy5.5 and MIH26 PE (top) or mouse IgG2a,k PE isotype control



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