

Brilliant Violet 421™ anti-human CD272 (BTLA) Antibody

Catalog# / Size	344511 / 25 tests 344512 / 100 tests
Clone	MIH26
Regulatory Status	RUO
Other Names	BTLA, B and T lymphocyte attenuator
Isotype	Mouse IgG2a, κ
Description	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 ⁺ 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 ⁺ and CD8 ⁺ T cells in vivo. 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

Verified Reactivity	Human
Reported Reactivity	African Green
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human BTLA transfected cells
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.
Excitation Laser	Violet Laser (405 nm)

Application Notes	Additional reported applications (for the relevant formats) include: inhibition of T cell proliferation and cytokine production ¹ . Clone MH26 has agonistic activity on BTLA, resulting in the inhibition of activation. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for use in <i>in vitro</i> and <i>in vivo</i> biofunctional assays.
Application References (PubMed link indicates BioLegend citation)	1. Otsuki N, <i>et al.</i> 2006. <i>Biochem. Biophys. Res. Co.</i> 344:1121. 2. Okano M, <i>et al.</i> 2008. <i>Clin. Exp. Allergy</i> 38:1891.
Product Citations	1. Schroeder JC, <i>et al.</i> 2020. <i>Cancers (Basel)</i> . :12. PubMed 2. Kong Y, <i>et al.</i> 2016. <i>Clin Cancer Res.</i> 22: 3057 - 3066. PubMed
RRID	AB_2566507 (BioLegend Cat. No. 344511) AB_2566508 (BioLegend Cat. No. 344512)

Antigen Details

Structure	Ig superfamily, with similar structure to CTLA-4 and PD-1
Distribution	B cells and T lymphocytes, NK cells and dendritic cells
Function	Negative regulation of T cell activation, proliferation and cytokine production
Ligand/Receptor	HVEM
Cell Type	B cells, Dendritic cells, NK cells, T cells, Tregs
Biology Area	Immunology, Inhibitory Molecules
Molecular Family	CD Molecules
Antigen References	1. Watanabe N, <i>et al.</i> 2003. <i>Nat. Immunol.</i> 4:670. 2. Sun Y, <i>et al.</i> 2009. <i>J. Immunol.</i> 183:1946. 3. Gonzalez LC, <i>et al.</i> 2005. <i>P. Natl. Acad. Sci. USA</i> 102:1116.
Gene ID	151888

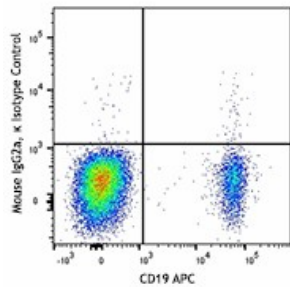
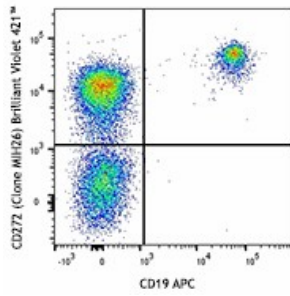
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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



Human peripheral blood lymphocytes stained with CD19 APC and CD272 (Clone MIH26) Brilliant Violet 421™ (top) or mouse IgG2a, κ Brilliant Violet 421™ isotype control (bottom).

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