

PE/Dazzle™ 594 anti-human CD272 (BTLA)

Catalog # / Size:	2322610 / 100 tests 2322605 / 25 tests
Clone:	MIH26
Isotype:	Mouse IgG2a, κ
Immunogen:	Human BTLA transfected cells
Reactivity:	Human
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and unconjugated antibody.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Concentration:	Lot-specific

Applications:

Applications: Flow Cytometry

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 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum emission of 610 nm.

Application Notes: Additional reported applications (for the relevant formats) include: inhibition of T cell proliferation and cytokine production¹. Clone MIH26 has agonistic activity on BTLA, resulting in the inhibition of activation.

Application References: 1. Otsuki N, *et al.* 2006. *Biochem. Bioph. Res. Co.* 344:1121.
2. Okano M, *et al.* 2008. *Clin. Exp. Allergy* 38:1891.

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.

- Antigen** 1. Watanabe N, *et al.* 2003. *Nat. Immunol.* 4:670.
- References:** 2. Sun Y, *et al.* 2009. *J. Immunol.* 183:1946.
3. Gonzalez LC, *et al.* 2005. *P. Natl. Acad. Sci. USA* 102:1116.