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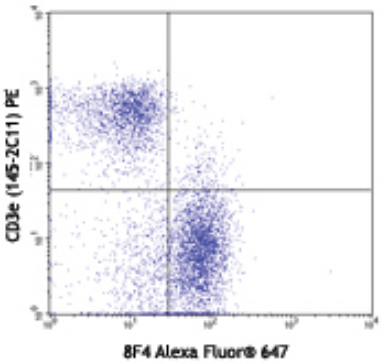
The path to legendary discovery™

Product Data Sheet

Alexa Fluor® 647 anti-mouse CD272 (BTLA)

Catalog # / Size: 134808 / 100 µg
Clone: 8F4
Isotype: Mouse IgG1, κ
Immunogen: C57BL/6 BTLA Ig domain protein in CFA
Reactivity: Mouse
Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 647.
Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Concentration: 0.5 mg/ml
Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



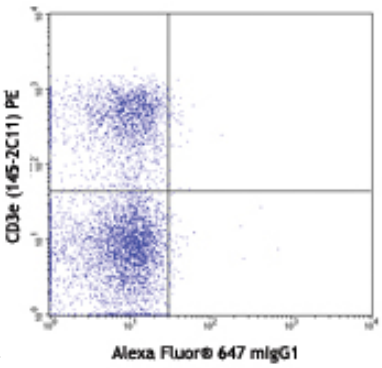
C57BL/6 splenocytes stained with 8F4 Alexa Fluor® 647 and CD3e (145-2C11) PE

Applications:

Applications: FC - *Quality tested*

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤0.25 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm.
** Alexa Fluor® 647 is a registered trademark of Molecular Probes, Inc. Alexa Fluor® 647 dye antibody conjugates are sold under license from Molecular Probes, Inc. for research use only, except for use in combination with microarrays and high content screening, and are covered by pending and issued patents.



C57BL/6 splenocytes stained with Alexa Fluor® 647 mouse IgG1 isotype control and CD3e (145-2C11) PE

Application References:
1. Hurchla MA, *et al.* 2005. *J. Immunol.* 174:3377

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, reduced effectiveness of T regulatory cells. BTLA takes 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 was reported that BTLA may regulate T cell function by binding to B7-H4. But further studies are needed to confirm. The existence of three distinct BTLA alleles was reported. The BTLA antibody reacts with mouse BTLA from both BALb/c and C57BL/6 strains.

Antigen References:
1. Liu X, *et al.* 2009. *J. Immunol.* 182:4516
2. Miller ML, *et al.* 2009. *J. Immunol.* 183:32
3. Sun Y, *et al.* 2009. *J. Immunol.* 183:1946
4. Vendel AC, *et al.* 2009. *J. Immunol.* 182:1509
5. Watanabe N, *et al.* 2003. *Nat. Immunol.* 4(7):670
6. Sedy JR, *et al.* 2005. *Nat Immunol.* 6(1):90

Related Products:

Product	Clone	Application
Alexa Fluor® 647 Mouse IgG1, κ Isotype Ctrl (FC)	MOPC-21	FC, IF
Cell Staining Buffer		FC, ICC, ICFC
RBC Lysis Buffer (10X)		FC, ICFC

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TruStain fcX™ (anti-mouse CD16/32)	93	FC

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