

Technical Data Sheet

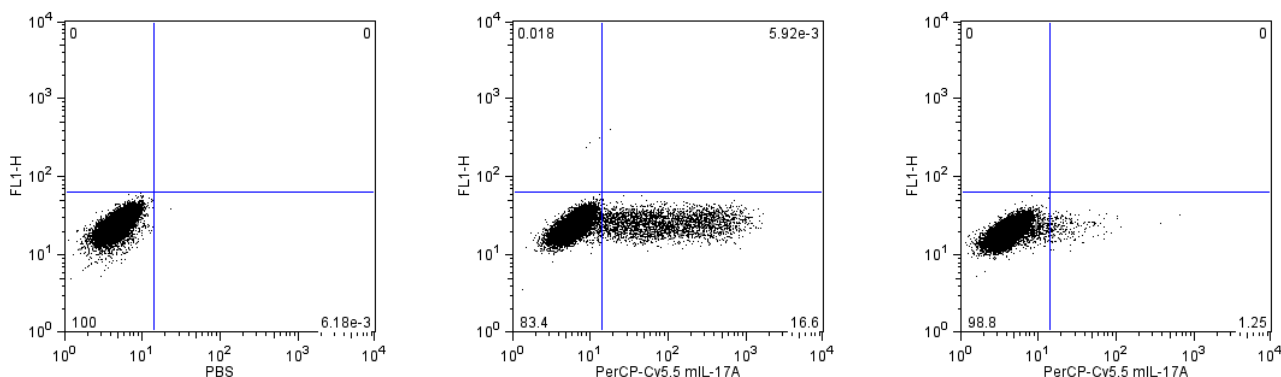
PerCP-Cy[™]5.5 Rat Anti-Mouse IL-17A

Product Information

Material Number:	560666
Alternate Name:	Interleukin-17A; IL17a; Cytotoxic T-lymphocyte-associated antigen; CTLA-8
Size:	0.1 mg
Concentration:	0.2 mg/ml
Clone:	TC11-18H10
Immunogen:	Recombinant Mouse IL-17A Protein
Isotype:	Rat (LEW) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing $\leq 0.09\%$ sodium azide.

Description

The TC11-18H10 antibody reacts with recombinant and natural mouse IL-17A proteins. IL-17A, also known as CTLA-8, is a T cell-derived cytokine that promotes inflammatory responses. Mouse IL-17A is a proinflammatory cytokine that can induce the release of IL-6 by mouse stromal cells. It has been shown to support the growth of hemopoietic progenitors in vitro; it can also stimulate granulopoiesis in vivo. The TC11-18H10 antibody has been reported to neutralize IL-17A activity. Recent studies have shown that IL-17A is produced by a unique subset of Th17 cells that develop along a pathway distinct from the Th1- and Th2- cell differentiation pathways. The mouse IL-17A cDNA was isolated from a cDNA library generated from TCR $\alpha\beta$ +CD4-CD8- thymocytes.



Characterization of mIL-17A-producing cells within a stimulated mouse EL4 thymoma cell population. EL4 cells were stimulated (left and middle panels) or unstimulated (right panel) with PMA (50 ng/ml final concentration; Sigma, Cat. No. P-8139) and Ionomycin (1000 ng/ml final concentration; Sigma, Cat. No. I-0634) in the presence of BD GolgiStop™ (Cat. No. 554724). The cells were fixed, permeabilized and subsequently stained with PerCP-Cy5.5 conjugated anti-mouse IL-17A (clone TC11-18H10, Cat. No. 560666) (middle and right panels) or PBS for autofluorescence on activated cells (left panel) using Pharmingen's I/C staining protocol. The quadrant markers for the bivariate dot plots were set based on the autofluorescence control (left panel), and verified with the unstimulated stained (right panel).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with PerCP-Cy5.5 under optimum conditions, and unconjugated antibody and free PerCP-Cy5.5 were removed. Storage of PerCP-Cy5.5 conjugates in unoptimized diluent is not recommended and may result in loss of signal intensity. Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554715	BD Cytofix/Cytoperm Plus Kit (with BD GolgiStop)	250 tests	(none)

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Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
3. This product is subject to proprietary rights of Amersham Biosciences Corp. and Carnegie Mellon University and made and sold under license from Amersham Biosciences Corp. This product is licensed for sale only for research. It is not licensed for any other use. If you require a commercial license to use this product and do not have one return this material, unopened to BD Biosciences, 10975 Torreyana Rd, San Diego, CA 92121 and any money paid for the material will be refunded.
4. PerCP-Cy5.5 is optimized for use with a single argon ion laser emitting 488-nm light. Because of the broad absorption spectrum of the tandem fluorochrome, extra care must be taken when using dual-laser cytometers, which may directly excite both PerCP and Cy5.5™. We recommend the use of cross-beam compensation during data acquisition or software compensation during data analysis.
5. PerCP-Cy5.5-labelled antibodies can be used with FITC- and R-PE-labelled reagents in single-laser flow cytometers with no significant spectral overlap of PerCP-Cy5.5, FITC, and R-PE fluorescence.
6. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
9. Cy is a trademark of Amersham Biosciences Limited. This conjugated product is sold under license to the following patents: US Patent Nos. 5,486,616; 5,569,587; 5,569,766; 5,627,027.
10. An isotype control should be used at the same concentration as the antibody of interest.

References

- Kennedy J, Rossi DL, Zurawski SM, et al. Mouse IL-17: a cytokine preferentially expressed by alpha beta TCR + CD4-CD8-T cells. *J Interferon Cytokine Res.* 1996; 16(8):611-617. (Biology)
- Prussin C, Metcalfe DD. Detection of intracytoplasmic cytokine using flow cytometry and directly conjugated anti-cytokine antibodies. *J Immunol Methods.* 1995; 188(1):117-128. (Methodology: IC/FCM Block)
- Schwarzenberger P, La Russa V, Miller A, et al. IL-17 stimulates granulopoiesis in mice: use of an alternate, novel gene therapy-derived method for in vivo evaluation of cytokines. *J Immunol.* 1998; 161(11):6383-6389. (Biology)
- Yen D, Cheung J, Scheerens H et al. IL-23 is essential for T cell-mediated colitis and promotes inflammation via IL-17 and IL-6. *J Clin Invest.* 2006; 116(5):1310-1316. (Biology)