

Technical Data Sheet

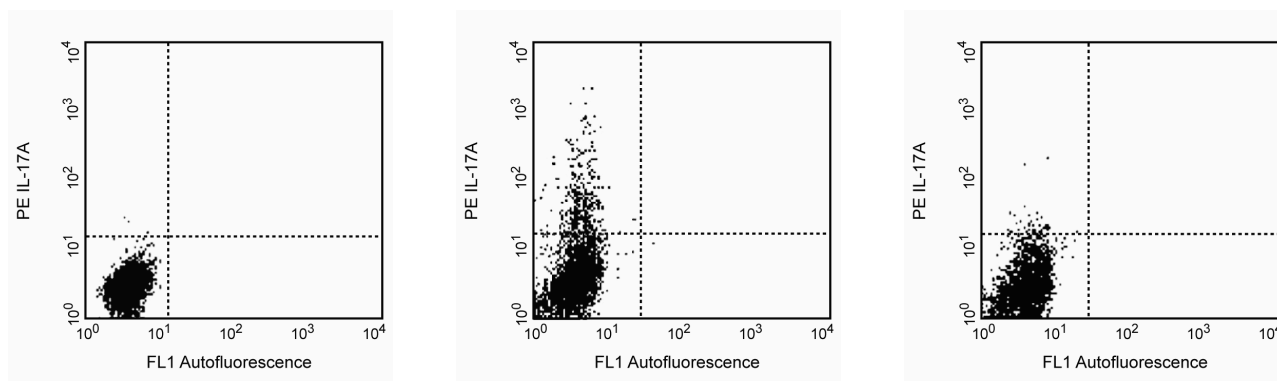
PE Rat Anti-Mouse IL-17A

Product Information

Material Number:	561020
Alternate Name:	Interleukin-17A; IL17a; Cytotoxic T-lymphocyte-associated antigen; CTLA-8
Size:	25 µg
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 ≤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 TCRαβ+CD4-CD8- thymocytes.



Characterization of IL-17A-producing cells within a stimulated mouse EL4 thymoma cell population. EL4 cells were cultured overnight in the presence of GolgiPlug™ (1 µg/ml final concentration; Cat. No. 555029) without (left panel) or with PMA (5 ng/ml final concentration; Sigma, Cat. No. P-8139) and Ionomycin (500 ng/ml final concentration; Sigma, Cat. No. I-0634) (middle and right panels). The cells were fixed, permeabilized and subsequently stained with 0.125 µg of the PE conjugated anti-mouse IL-17A antibody (clone TC11-18H10) (left and middle panels). To demonstrate the specificity of staining, the binding of PE-TC11-18H10 was blocked by the preincubation of the fixed/permeabilized, stimulated EL4 cells with unlabeled TC11-18H10 antibody (10 µg; Cat. No. 559501, right panel). The quadrant markers for the bivariate dot plots were set based on the autofluorescence control, and verified with the unstimulated stained (left panel) and unlabeled antibody blocking (right panel) controls.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

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

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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Recommended Assay Procedure:

Flow Cytometry: The PE-conjugated TC11-18H10 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify and enumerate IL-17A producing cells within mixed cell populations. For optimal immunofluorescent staining and flow cytometric analysis, this anti-cytokine antibody should be titrated (≤ 0.25 µg mAb/million cells). A useful control for demonstrating the specificity of staining is to pre-block paraformaldehyde-fixed/saponin-permeabilized target cells with unlabeled TC11-18H10 antibody (Cat. No. 559501) prior to staining. A

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suitable rat IgG1 isotype control for assessing the level of background staining on paraformaldehyde-fixed/saponin-permeabilized mouse is PE-R3-34 (Cat. No. 554685); use at comparable concentrations to antibody of interest (e.g., ≤ 0.25 μ g mAb/1 million cells).

Suggested Companion Products

Catalog Number	Name	Size	Clone
555029	Protein Transport Inhibitor (Containing Brefeldin A)	1.0 ml	(none)
554685	PE Rat IgG1, κ Isotype Control	0.1 mg	R3-34
555028	BD Cytotfix/Cytoperm Plus Kit (with BD GolgiPlug)	250 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. 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.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

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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)