Technical Data Sheet

BV421 Rat Anti-Mouse IL-17A

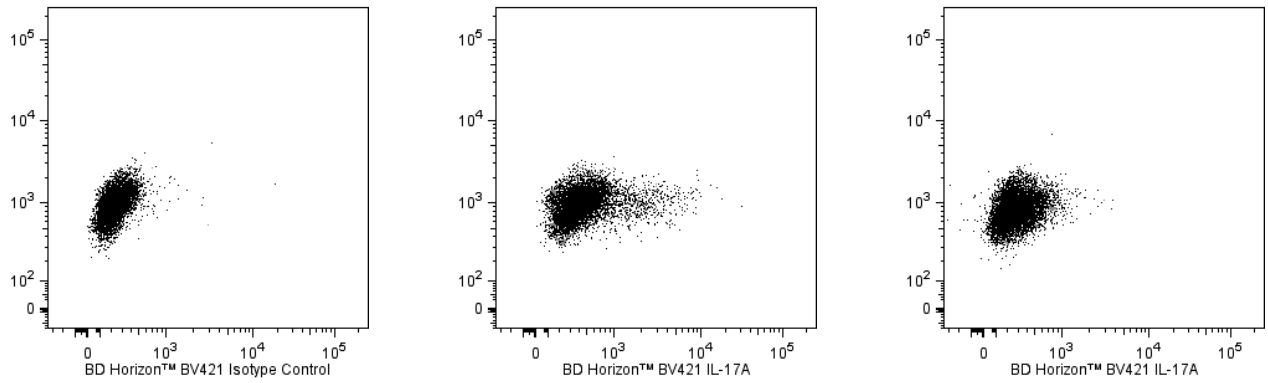
Product Information

Material Number:	**563354**
Alternate Name:	Interleukin-17A; Il17a; Cytotoxic T-lymphocyte-associated antigen; CTLA-8
Size:	50 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 BSA and ≤0.09% sodium azide.

Description

The TC11-18H10 monoclonal antibody specifically binds to 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.

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Flow cytometric analysis of IL-17A-producing cells within a stimulated mouse EL4 thymoma cell population. *EL4 cells were stimulated (Left and Middle Panels) or were not stimulated (Right Panel) with Phorbol 12-Myristate 13-Acetate (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™ Protein Transport Inhibitor (Cat. No. 554724) for 5 hours. The cells were fixed, permeabilized and subsequently stained with BD Horizon™ BV421 Rat Anti-Mouse IL-17A (Cat. No. 563354; Middle and Right panels) or BD Horizon™ BV421 Rat IgG1 κ Isotype Control (Cat. No. 562868; Left Panel) using BD Biosciences' Protocol for Immunofluorescent Staining of Intracellular Cytokines for Flow Cytometric Analysis. Two-color dot plots showing correlated expression patterns of IL-17A (or Ig Isotype control staining) versus cellular autofluorescence were derived from gated events with the forward and side light-scatter characteristics of intact cells. Flow cytometric analysis was performed using a BD™ LSR II Flow Cytometer System.*

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 BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

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Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
554724	Protein Transport Inhibitor (Containing Monensin)	0.7 ml	(none)
562868	BV421 Rat IgG1, κ Isotype Control	50 µg	R3-34

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

References

Coquet JM, Chakravarti S, Kyparissoudis K, McNab FW, Pitt LA, McKenzie BS, Berzins SP, Smyth MJ, Godfrey DI. Diverse cytokine production by NKT cell subsets and identification of an IL-17-producing CD4-NK1.1- NKT cell population. *Proc Natl Acad Sci U S A.* 2008; 105(32):11287-11292. (Clone-specific: Flow cytometry)

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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: Flow cytometry)

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)

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