

Technical Data Sheet

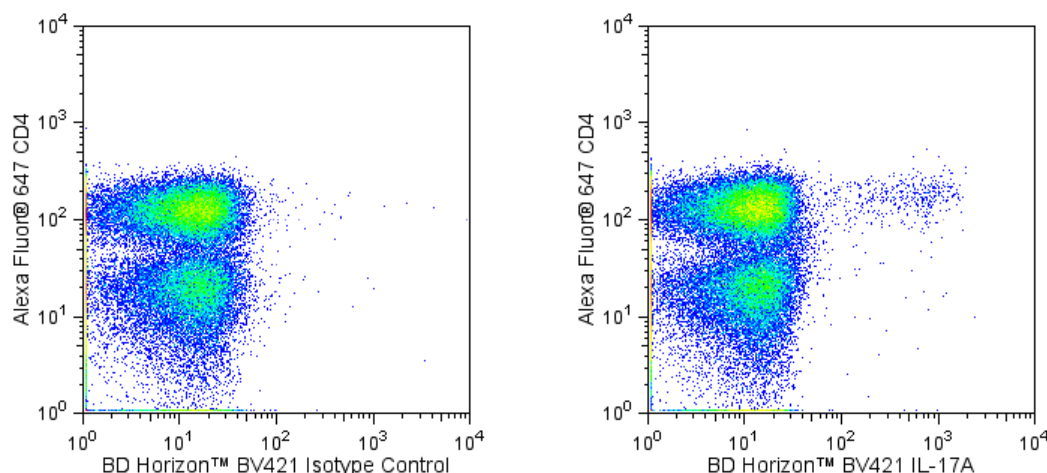
BV421 Mouse Anti-Human IL-17A**Product Information**

Material Number:	562933
Alternate Name:	IL-17; CTLA8; Cytotoxic T-lymphocyte-associated serine esterase 8
Size:	50 tests
Vol. per Test:	5 µl
Clone:	N49-653
Immunogen:	Human IL-17A Recombinant Protein
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Human IL-17A, also known as IL-17, is a proinflammatory cytokine that is encoded by the IL17A gene in chromosome 6. IL-17A is produced as a disulfide-linked homodimer comprised of two mature 136-amino acid polypeptides. It is a member of the IL-17 family of structurally related cytokines, designated IL-17A through IL-17F. Activated memory T cells, especially Th17 cells (specialized IL-17A-producing CD4+ T cells distinct from Th1 and Th2 cells) produce IL-17 and provide protective immunity against pathogens. Activated CD8+ T cells, γδT cells, NK cells and neutrophils can also be activated to produce IL-17A. IL-17A binds to and exerts its biological activity through IL-17 receptors (IL-17R) that are expressed by a variety of target cells including fibroblasts, epithelial and endothelial cells, monocytes/macrophages and mast cells. The ubiquitous IL-17R expression pattern may explain the broad tissue responsiveness to IL-17. IL-17 induces stromal cells to secrete cytokines and chemokines involved in inflammatory and hematopoietic processes. For example, IL-17 induces fibroblasts to produce IL-6, IL-8, G-CSF and express increased surface ICAM-1. The N49-653 antibody reacts with human IL-17A.

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.



Multicolor flow cytometric analysis of IL-17A expressed in stimulated human peripheral blood mononuclear cells. HiCK-1 Human Cytokine Positive Control Cells (Cat. No. 555061) were permeabilized with BD Perm/Wash™ Buffer (Cat. No. 554723). The cells were then stained with either a BD Horizon™ BV421 Mouse IgG1, κ Isotype Control (Cat No. 562438, Left Panel) or with the BD Horizon™ BV421 Mouse Anti-Human IL-17A antibody (Cat No. 562933, Right Panel) in conjunction with an Alexa Fluor® 647 Mouse Anti-Human CD4 antibody (Cat. No. 557707). Two-color flow cytometric dot plots showing the expression of IL-17A (or Ig Isotype Control staining) versus CD4 were derived from gated events with the forward and side light-scatter characteristics of intact lymphocytes. Flow cytometry was performed using a BD LSR™ II Flow Cytometry System.

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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.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
562438	BV421 Mouse IgG1, k Isotype Control	50 µg	X40
555061	HiCK-1 Human Cytokine Positive Control Cells	1.0 ml	(none)
554723	Perm/Wash Buffer	100 ml	(none)
557707	Alexa Fluor®647 Mouse Anti-Human CD4	100 tests	RPA-T4

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Please refer to www.bdbiosciences.com/pharming/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.
9. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.

References

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