

Technical Data Sheet

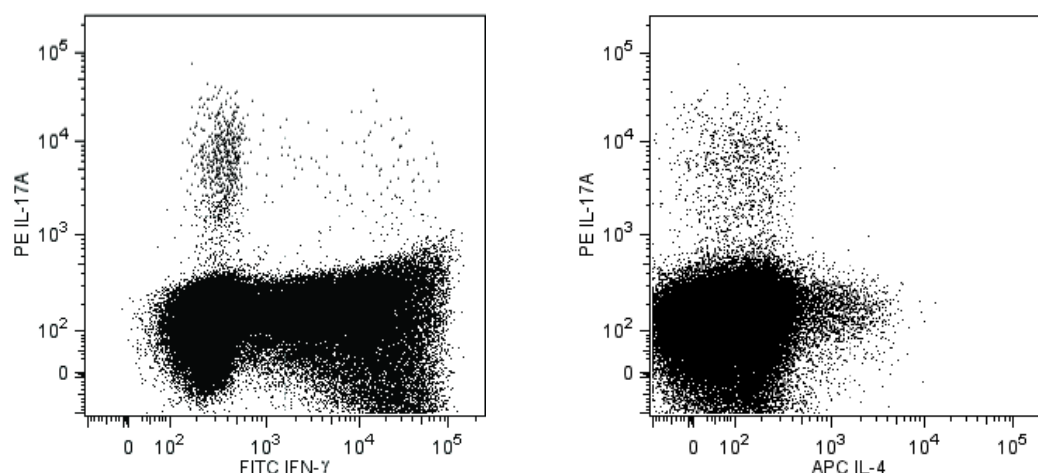
PE Mouse anti-Human IL-17A

Product Information

Material Number:	560486
Alternate Name:	IL-17; IL-17A; CTLA8; Cytotoxic T-lymphocyte-associated serine esterase 8
Size:	100 tests
Vol. per Test:	20 µl
Clone:	N49-653
Immunogen:	Human IL-17A Recombinant Protein
Isotype:	Mouse IgG1, κ
Reactivity:	QC tested: 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.



Flow cytometric analysis of PE anti-human IL-17A on stimulated PBMC. Human PBMC were stimulated with PMA/Ionomycin in the presence of BD GolgiStop™ (Cat. No. 554724) for 5 hours. Cells were then fixed and permeabilized using BD Cytofix/Cytoperm™ reagents (Cat. No. 554714) followed by staining with PE anti-human IL-17A and FITC anti-human IFN-γ (Cat. No. 554700; left panel) and APC anti-human IL-4 (Cat. No. 554486; right panel). The dot plots were derived from a lymphocyte gate. Flow cytometry was performed on a BD FACSCalibur™ System.

Preparation and Storage

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.

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
554724	Protein Transport Inhibitor (Containing Monensin)	0.7 ml	(none)
554714	BD Cytfix/Cytoperm™ Fixation/Permeablization Kit	250 tests	(none)
554700	FITC Mouse Anti-Human IFN- γ	0.1 mg	B27
554486	APC Rat Anti-Human IL-4	0.1 mg	MP4-25D2
559865	APC Mouse Anti-Human CD45RO	100 tests	UCHL1
554702	APC Mouse Anti-Human IFN- γ	0.1 mg	B27

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- μ l experimental sample (a test).
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
4. 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.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Fossiez F, Djossou O, Chomarat P, et al. T cell interleukin-17 induces stromal cells to produce proinflammatory and hematopoietic cytokines. *J Exp Med*. 1996; 183(6):2593-2603. (Biology)

Korn T, Oukka M, Kuchroo V, Bettelli E. Th17 cells: effector T cells with inflammatory properties. *Semin Immunol*. 2007; 19(6):362-371. (Biology)

Moseley TA, Haudenschild DR, Rose L, Reddi AH. Interleukin-17 family and IL-17 receptors. *Cytokine Growth Factor Rev*. 2003; 14(2):155-174. (Biology)

Weaver CT, Hatton RD, Mangan PR, Harrington LE. IL-17 family cytokines and the expanding diversity of effector T cell lineages. *Annu Rev Immunol*. 2007; 25:821-852. (Biology)

Yao Z, Painter SL, Fanslow WC, et al. Human IL-17: a novel cytokine derived from T cells. *J Immunol*. 1995; 155(12):5483-5486. (Immunogen)

Yao Z, Spriggs MK, Derry JM, et al. Molecular characterization of the human interleukin (IL)-17 receptor. *Cytokine*. 1997; 9(11):794-800. (Biology)