Technical Data Sheet

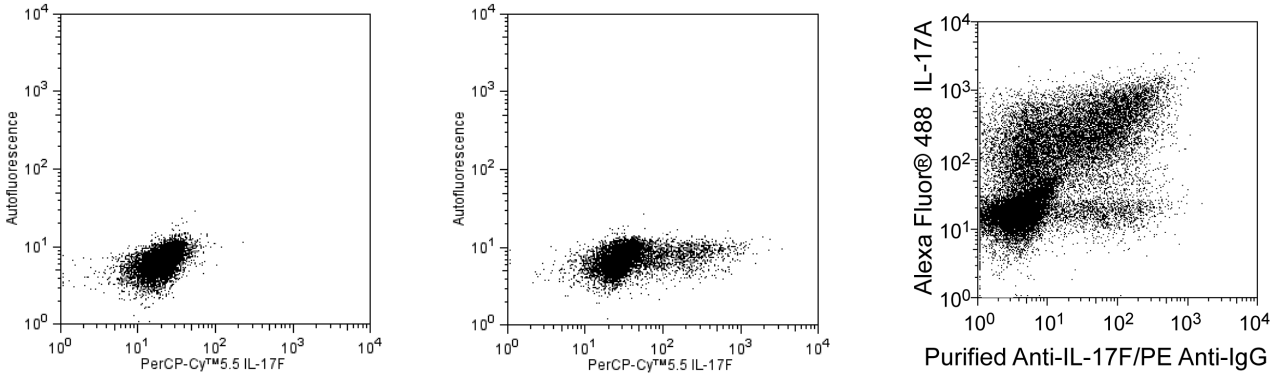
PerCP-Cy™5.5 Mouse Anti-Mouse IL-17F

Product Information

Material Number:	**562194**
Alternate Name:	Il17f; interleukin 17F; Interleukin-17F
Size:	50 µg
Concentration:	0.2 mg/ml
Clone:	O79-289
Immunogen:	Mouse IL-17F Recombinant Protein
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Mouse
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The O79-289 monoclonal antibody specifically binds to the inflammatory cytokine protein, Interleukin-17 (IL-17F). IL-17F is a member of the IL-17 family of cytokines. Among IL-17 family members, IL-17F has the highest amino acid sequence homology to IL-17A. IL-17F is produced by activated CD4+ T helper (Th17) cells, CD8+ T (Tc17) cells and γδ T cells. IL-17F can be secreted as homodimers or as heterodimers with IL-17A. IL-17F and IL-17A have overlapping functions such as inducing epithelial cells and fibroblasts to produce proinflammatory cytokines and chemokines including IL-6, GM-CSF, CXCL1, CCL2, and CCL7. These factors attract and activate neutrophils and other cell types that mediate protective responses against pathogenic microbes or pathologic allergic or autoimmune diseases. IL-17 gene knockout studies have shown that IL-17F and IL-17A have independent functions as well. IL-17F and IL-17A exert their biological function by binding to and signaling through IL-17 receptors comprised of the transmembrane receptor subunits, IL-17RA (CD217) and IL-17RC.



Flow cytometric analysis of mouse IL-17F expression in resting or stimulated mouse EL4 thymoma cells or in polarized mouse Th17 cells.*Mouse EL4 thymoma cells were either unstimulated or stimulated with Phorbol 12-Myristate 13-Acetate (PMA; Sigma P-8139) and Ionomycin (Sigma; I-0634) in the presence of BD GolgiStop™ Protein Transport Inhibitor (Cat. No. 554724) for 5 hours. Th17 cells were generated from Th17-polarizing mouse spleen cell cultures and were stimulated with PMA and Ionomycin with BD GolgiStop™ Protein Transport Inhibitor. The EL4 and Th17 cells were fixed and permeabilized using the BD Cytofix/Cytoperm™ Fixation/Permeabilization Solution Kit (Cat. No. 554714). The unstimulated (Left Panel) and stimulated (Middle Panel) EL4 cells were stained with PerCP-Cy™5.5 Mouse Anti-Mouse IL-17F (Cat. No. 562194). To validate O79-289 antibody use for staining IL-17F in Th17 cells generated from primary mouse T cells, the fixed and permeabilized Th17-polarized cells were stained with purified O79-289 Mouse Anti-Mouse IL-17F antibody followed by PE Goat Anti-Mouse Ig (Cat. No. 550589) and with Alexa Fluor® 488 Rat Anti-Mouse IL-17A antibody (Cat. No. 560220) (Right Panel). Two-color flow cytometric dot plots showing the correlated expression patterns of IL-17F versus cellular autofluorescence (measured in the FL1 channel) for EL4 cells or versus IL-17A for Th17 cells were derived from gated events with the forward and side light-scatter characteristics of intact cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometry 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 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.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested

BD Biosciences

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877.232.8995	888.268.5430	32.53.720.550	0120.8555.90	65.6861.0633	0800.771.7157

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554724	Protein Transport Inhibitor (Containing Monensin)	0.7 ml	(none)
554714	BD Cytofix/Cytoperm™ Fixation/Permeablization Kit	250 tests	(none)
550589	PE Goat Anti-Mouse Ig (Multiple Adsorption)	0.2 mg	Polyclonal
560220	Alexa Fluor® 488 Rat anti-Mouse IL-17A	0.1 mg	TC11-18H10

Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
2. 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.
3. 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.
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. 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. 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.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
8. 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.
9. Since applications vary, each investigator should titrate the reagent to obtain optimal results.

References

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