Technical Data Sheet

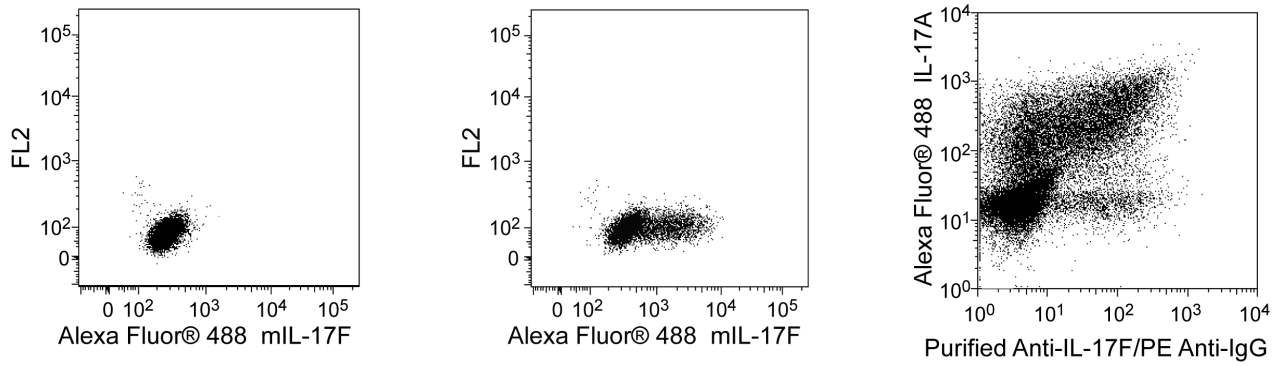
Alexa Fluor® 488 Mouse anti-Mouse IL-17F

Product Information

Material Number:	**561631**
Alternate Name:	Il17f; interleukin 17F; Interleukin-17F
Size:	0.1 mg
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 Alexa Fluor® 488 Mouse anti-Mouse IL-17F (Cat. No. 561631). 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 FL2 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

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

The antibody was conjugated to Alexa Fluor® 488 under optimum conditions, and unreacted Alexa Fluor® 488 was 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

BD Biosciences

bdbiosciences.com

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877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

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)
554656	Stain Buffer (FBS)	500 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Alexa Fluor® 488 fluorochrome emission is collected at the same instrument settings as for fluorescein isothiocyanate (FITC).
5. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
6. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
7. 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.
8. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.

References

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Hamada H, Garcia-Hernandez MdlL, Reome JB, et al. Tc17, a unique subset of CD8 T cells that can protect against lethal influenza challenge. *J Immunol.* 2009; 182(6):3469-3481. (Biology)

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