

# IL-17F Monoclonal Antibody (eBio18F10), PerCP-eFluor™ 710, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PerCP-eFluor™ 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBio18F10
Conjugate	PerCP-eFluor™ 710
Excitation/Emission Max	482/708 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2573841

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	3 Publications

## Product Specific Information

**Description:** The eBio18F10 antibody reacts with mouse IL-17F. IL-17F is a 37 kD homodimer of the IL-17 family and a signature Th17 marker. Of all the six IL-17 family members, IL-17F and IL-17A share the strongest homology (50% amino acid identity), and the two genes are located in the same chromosomal region. Recent studies have demonstrated coordinated regulation of IL-17A and IL-17F during Th17 differentiation. Expression of IL-17F and IL-17A has been detected in activated human peripheral blood lymphocytes, specifically by activated human CD4+ T cells. In addition to IL-17A, differentiated Th17 cells also produce IL-17F and IL-22 upon re-activation. Like IL-17A, IL-17F has been linked with inflammatory diseases. IL-17F and IL-17A expression has been observed in tissue samples from various autoimmune diseases, such as rheumatoid arthritis, multiple sclerosis, psoriasis, inflammatory bowel disease, and asthma. IL-17F treatment of airway epithelium, vein endothelial cells, and fibroblasts has been reported to induce expression of IL-6, IL-8, GRO alpha, ENA-78, TGF beta, MCP-1, G-CSF, GM-CSF, and ICAM-1.

Like IL-17A, IL-17F is a disulfide-linked homodimeric glycoprotein. The IL-17F homodimer includes a classical cysteine knot motif, which is found also in the TGF beta, BMP, and NGF superfamilies. The presence of the cysteine knot motif suggested the possibility of a heterodimeric structure, as was reported for TGF beta and inhibin/activin. Recent reports confirm that co-expression of IL-17F and IL-17A in HEK293 cells results in the formation of biologically active IL-17F/IL-17A heterodimers, in addition to the IL-17F homodimers and IL-17A homodimers. Moreover, activated human CD4+ T cells were found to produce the IL-17A/F heterodimer, along with the corresponding homodimers. In comparing the relative potency of IL-17A, IL-17F, and IL-17A/F, all three were found to induce GRO alpha secretion; IL-17A was most potent, followed by IL-17A/F heterodimer, then IL-17F (100-fold lower than IL-17A). In the mouse, the IL-17A/F heterodimer (alone or in synergy with TNF alpha) was found to regulate the expression of IL-6 and KC (mouse homolog of human GRO alpha); this was found to be dependent on IL-17RA and TRAF6.

Applications Reported: This eBio18F10 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested: This eBio18F10 antibody has been tested by intracellular staining and flow cytometric analysis of restimulated Th17-polarized mouse splenocytes. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

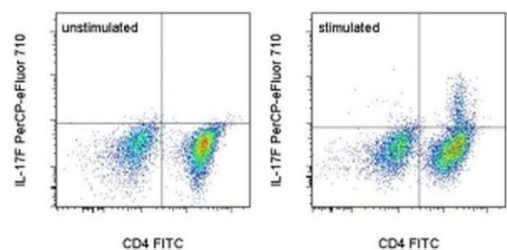
PerCP-eFluor® 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.

Our testing indicates that PerCP-eFluor® 710 conjugated antibodies are stable when stained samples are exposed to freshly prepared 2% formaldehyde overnight at 4°C, but please evaluate for alternative fixation protocols.

Excitation: 488 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For IL-17F Monoclonal Antibody (eBio18F10), PerCP-eFluor™ 710, eBioscience™



**IL-17F Antibody (46-7471-82) in Flow**  
Ten-day Th17-polarized mouse splenocytes were unstimulated (left) or stimulated with Cell Stimulation Cocktail (plus protein transport inhibitors) (Product # 00-4975-03) (right) for 5 hrs, followed by intracellular staining with Anti-Mouse CD4 FITC (Product # 11-0042-82) and 0.06 µg of Anti-Mouse IL-17F PerCP-eFluor® 710. Total viable cells, as determined by Fixable Viability Dye eFluor® 450 (Product # 65-0863-14), were used for analysis.

3 References

Flow Cytometry (3)

Scientific reports	Year
<b>Lactobacillus reuteri 5454 and Bifidobacterium animalis ssp. lactis 5764 improve colitis while differentially impacting dendritic cells maturation and antimicrobial responses.</b>	2020
"Published figure using IL-17F monoclonal antibody (Product # 46-7471-82) in Flow Cytometry"	
Authors: Hrdý J, Alard J, Couturier-Maillard A, Boulard O, Bouillier D, Delacré M, Lapadatescu C, Cesaro A, Blanc P, Pot B, Ryffel B, Chamaillard M, Grange C	
Nature	Year
<b>Generation of pathogenic T(H)17 cells in the absence of TGF- signalling.</b>	2010
Authors: Ghoreschi K, Laurence A, Yang XP, Tato CM, McGeachy MJ, Konkel JE, Ramos HL, Wei L, Davidson TS, Bouladoux N, Grainger JR, Chen Q, Kanno Y, Watford WT, Sun HW, Eberl G, Shevach EM, Belkaid Y, Cua DJ, Chen W, O'Shea JJ	

View more Flow references on thermofisher.com

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