

IL-21 Monoclonal Antibody (FFA21), APC, eBioscience™

Product Details

Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), APC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	FFA21
Conjugate	APC
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2016709

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	2 Publications

Product Specific Information

Description: This FFA21 monoclonal antibody reacts with mouse interleukin-21 (IL-21). IL-21 is a 17 kDa immunomodulatory cytokine produced mainly by NKT, T helper (Th) 17 and T follicular helper (TFH) cells. In TFH cells, IL-21 expression leads to autocrine signaling through the IL-21 receptor (IL-21R) and STAT3, which leads to additional transcriptional activation by Bcl6. As with IFN gamma for Th1, IL-4 for Th2 and IL-17A for Th17, IL-21 is critical for TFH cell effector function. This cytokine plays a role in T cell-dependent B cell differentiation into plasma cells and memory cells, stimulation of IgG production and induction of apoptotic signaling in naive B cells.

In Th17 cells, IL-21 expression and autocrine feedback through STAT3, IRF4 and ROR gamma t lead to upregulation of the IL-23R, thereby preparing Th17 cells for maturation and maintenance by the inflammatory cytokine IL-23. While upregulating IRF4 and ROR gamma t, IL-21 also mediates the downregulation of Foxp3. High levels of IL-21 are present in chemically-induced colitis models. IL-21-deficient mice are protected from developing colitis upon chemical treatment by their inability to upregulate Th17-associated molecules.

Preliminary data suggest that clone FFA21 recognizes a different epitope than anti-mouse IL-21 clone mhalx21 (cat. 51-7213).

Applications Reported: This FFA21 antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

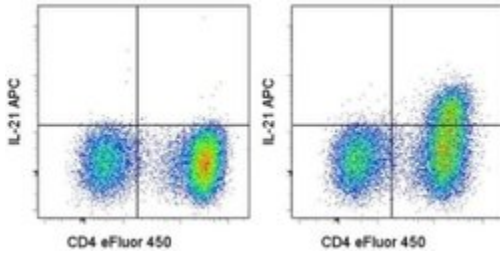
Applications Tested: This FFA21 antibody has been tested by intracellular staining and flow cytometric analysis on Th17-polarized splenocytes restimulated with PMA, Ionomycin and Brefeldin A for 5 hours. This can be used at less than or equal to 0.125 µg per test. A test is defined as the amount (µg) 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for

optimal performance in the assay of interest.

Excitation: 633-647 nm; Emission: 660 nm; Laser: Red Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For IL-21 Monoclonal Antibody (FFA21), APC, eBioscience™



IL-21 Antibody (17-7211-82) in Flow

Intracellular staining of Th17-polarized BALB/c splenocytes with Anti-Mouse CD4 eFluor® 450 (Product # 48-0042-82) and 0.125 µg of Anti-Mouse IL-21 APC. Cells were polarized for 9 days and then treated for 5 hours with Brefeldin A alone (Product # 00-4506-51) (left) or PMA/Ionomycin and Brefeldin A (right). Cells in the lymphocyte gate were used for analysis.

[View more figures on thermofisher.com](#)

2 References

Flow Cytometry (2)

Malaria journal

Characterization of T cells in lung of Plasmodium yoelii-infected C57BL/6 mice.

"Published figure using IL-21 monoclonal antibody (Product # 17-7211-82) in Flow Cytometry"

Authors: Wei H, Jin C, Peng A, Xie H, Xie S, Feng Y, Xie A, Li J, Fang C, Yang Q, Qiu H, Qi Y, Yin Z, Wang X, Huang J

Species

Not Applicable

Dilution

Not Cited

Year

2021

Frontiers in immunology

Age-Related Differential Stimulation of Immune Response by Babesia microti and Borrelia burgdorferi During Acute Phase of Infection Affects Disease Severity.

"Published figure using IL-21 monoclonal antibody (Product # 17-7211-82) in Flow Cytometry"

Authors: Djokic V, Primus S, Akoolo L, Chakraborti M, Parveen N

Species

Not Applicable

Dilution

Not Cited

Year

2019

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