IL-22 Monoclonal Antibody (IL22JOP), APC, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Human, Mouse, Rhesus monkey
Published Species	Non-human primate, Mouse, Human, Rhesus monkey
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), APC, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	IL22JOP
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_10597583

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.25 µg/test	30 Publications

Product Specific Information

Description: The monoclonal antibody IL22JOP reacts with and inhibits the bioactivity of human and mouse IL-22. IL-22 is a 20 kDa member of the IL-10 cytokine family that is secreted primarily by Th17 cells, NK cells, and other T cells. Compared to IL-6 or TGF beta, IL-23 can induce greater levels of IL-22 in in vitro-differentiated Th17 cells. This observation suggests that IL-22 may be secreted by more fully differentiated Th17 cells in vivo. Recently, it was demonstrated that IL-22 could protect hosts from bacterial infection of the lungs and gut. Moreover, it has been reported that anti-CD3/CD28-induced production of IL-22 by PBMCs was elevated significantly in asthma patients compared to control patients. Flow cytometric analysis also showed that the frequencies of IL-17+IL-22+ CD4 T cells were increased in PBMCs from patients with ankylosing spondylitis and rheumatoid arthritis.

IL22JOP is published to recognize rhesus IL-22.

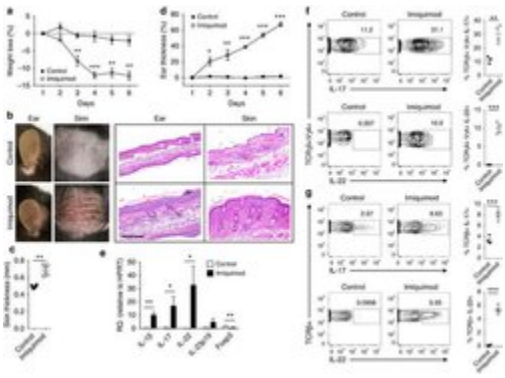
Applications Reported: This IL22JOP antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested: This IL22JOP antibody has been tested on Th17-polarized CD4+ normal human peripheral blood cells. This can be used at less than or equal to 0.25 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 10^5 to 10^8 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.

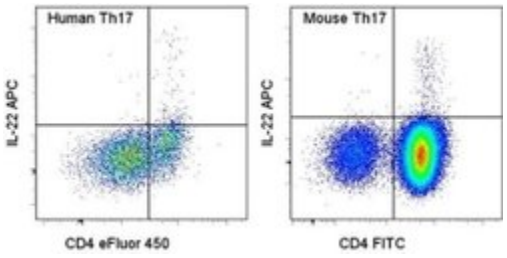
Filtration: 0.2 µm post-manufacturing filtered.

Advanced Verification Data



IL-22 Antibody (17-7222-82)
Figure 1 Imiquimod increases IL-17 and IL-22 in both gammadelta and alphabeta T cells in skin. Skin and ear of wild type C57BL/6 mice were treated by topical application of imiquimod cream (Fougera, n =4) or control cream (Vaseline, n =3) for 6 consecutive days. (a) Weight loss of imiquimod and control cream treated mice monitored daily. (b) Photographs of imiquimod and control cream treated skin and ear; photos were taken at day 6. H&E stained ear and back skin sections of imiquimod treated and control mice. Scale bar, 200 mum. (c) Thickness of skin measured by Digimatic Caliper at day 6 in control and imiquimod treated mice. Data showed represents average of at least two measurements. (d) Ear thickness of imiquimod and control cream treated mice monitored daily. Ear thickness was measured using Digimatic Caliper. (e) Quantitative PCR analysis of Th17 associated cytokines and Foxp3 in skin after 6 days of imiquimod and control cream treatment. (f) Representative flow cytometric analysis of TCRgammadelta + Vgamma4 + IL-17 + (upper raw) and TCRgammadelta + Vgamma4 + IL-22 + cells (lower row) in the skin of control (n =3) and imiquimod treated mice (n =4). (g) Representative flow cytometric analysis of single-positive TCRbeta + IL-17 + (upper raw) or TCRbeta + IL-22 + (lower raw) cells in the skin of control (n =3) and imiquimod treated mice (n =4). Data representative of more than three experiments, results are shown as mean+-s.e.m., significance determined b Cell treatment validation info.

Product Images For IL-22 Monoclonal Antibody (IL22JOP), APC, eBioscience™



IL-22 Antibody (17-7222-82) in Flow
Intracellular staining of 7-day Th17-polarized CD4+ normal human peripheral blood cells (using Human IL-23 Recombinant Protein (Product # 14-8239-63) (left) and 12-day Th17-polarized mouse splenocytes (using Mouse IL-23 Recombinant Protein (Product # 14-8231-63) (right) with 0.125 µg of Anti-Human/Mouse IL-22 APC. Both sets of polarized cells were incubated with PMA, Ionomycin, and Brefeldin A for 5 hours prior to treatment with the Intracellular Fixation & Permeabilization Buffer Set (Product # 88-8824-00). Human cells were then costained with Anti-Human CD4 eFluor 450 (Product # 48-0049-42) and mouse cells were costained with Anti-Mouse CD4 FITC (Product # 11-0042-82). Quadrants were set based on Th17 cells treated with Brefeldin A alone and cells in the lymphocyte gate were used for analysis.

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30 References

Flow Cytometry (30)

Cellular and molecular gastroenterology and hepatology

A Central Role for Lipocalin-2 in the Adaptation to Short-Bowel Syndrome Through Down-Regulation of IL22 in Mice.

"17-7222 was used in Flow cytometry/Cell sorting to ICN2 promotes inflammation and slows intestinal adaptation through changes in the microbiome and IL22 inhibition in a mouse SBS model."

Authors: Zhang A,Sodhi CP,Wang M,Shores DR,Fulton W,Prindle T,Brosten S,O'Hare E,Lau A,Ding H,Jia H,Lu P, White JR,Hui J,Sears CL,Hackam DJ,Alaish SM

Species
Mouse

Dilution
1:100

Year
2021

Nature communications

IL-21 and IFN therapy rescues terminally differentiated NK cells and limits SIV reservoir in ART-treated macaques.

"17-7222 was used in Flow cytometry/Cell sorting to generate terminally differentiated blood natural killer cells (NKG2a /clowCD16+) with potent human leukocyte antigen-E-restricted activity in response to SIV envelope peptides."

Authors: Harper J,Huot N,Micci L,Tharp G,King C,Rascle P,Shenvi N,Wang H,Galardi C,Upadhyay AA,Villinger F,Lifson J,Silvestri G,Easley K,Jacquelin B,Bosinger S,Müller-Trutwin M,Paiardini M

Species
Rhesus monkey

Dilution
Not Cited

Year
2021

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More applications with references on thermofisher.com