

APC anti-mouse IL-22 Antibody

Catalog# / Size	516409 / 100 tests
Clone	Poly5164
Regulatory Status	RUO
Other Names	Interleukin-22, IL-10-related T cell-derived inducible factor, IL-TIF
Isotype	Goat Polyclonal IgG
Description	IL-22 is a cytokine structurally related to IL-10. Mouse IL-22 consists of 179 amino acids and has a predicted molecular weight of 20 kD. It is secreted primarily by Th17, Th1, Th2, lymphoid tissue inducer cells (LTi), and subsets of natural killer cells. It has been reported that aryl hydrocarbon receptor (AhR) expression is essential for the production of IL-22 by TCR $\gamma\delta$ T cells. AhR activation increases Th17 polarization and induces IL-22 production. IL-22 functions by engaging the heterodimeric IL-22 receptor (IL-22R) complex, consisting of two receptor subunits, IL-22R1 and IL-10R β . IL-22 acts on nonhematopoietic tissue cells, such as epithelial cells of the digestive and respiratory systems and keratinocytes of the skin. IL-22 is involved in inflammatory processes such as dermal inflammation, psoriasis, inflammatory bowel disease, hepatitis, and Crohn's disease. Moreover, it plays a critical role in mucosal immunity and the wound healing process.

Product Details

Reactivity	Mouse
Antibody Type	Polyclonal
Host Species	Goat
Immunogen	Mouse IL-22, amino acids Leu34-Val179 (Accession# NM_016971), was expressed in <i>E. coli</i> .
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
Preparation	The antibody was purified by affinity chromatography and conjugated with APC under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	ICFC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood.
Excitation Laser	Red Laser (633 nm)
Application Notes	<p>ELISA Capture: The purified Poly5164 antibody is useful as a capture antibody in a sandwich ELISA assay, when used in conjunction with the biotinylated Poly5164 antibody (Cat. No. 516407) as the detecting antibody and recombinant mouse IL-22 (Cat. No. 576209) as the standard.</p> <p>In sandwich ELISA, Poly5164 has approximately 17% and 2% cross-reactivity with recombinant rat and human IL-22, respectively.</p> <p>Flow Cytometry: The fluorochrome-labeled Poly5164 antibody is useful for immunofluorescent staining and flow cytometric analysis to identify IL-22-producing cells within mixed cell populations.</p> <p>Note: For testing mouse IL-22 in serum, plasma or supernatant, LEGEND MAX™ Mouse IL-22 ELISA Kit (Cat. No. 436307 & 436308) is specially developed and recommended.</p> <p>Note: The use of Iscove's Modified Dulbecco's Medium (IMDM) will result in better <i>in vitro</i> Th17</p>

polarization.¹

Application References

1. Veldhoen M, *et al.* 2009. *J. Exp. Med.* 206:43.

(PubMed link indicates BioLegend citation)

Product Citations

1. Rolla S, *et al.* 2015. *Clin Sci.* 130: 193 - 203. [PubMed](#)
2. Di Pietro C, *et al.* 2016. *J Immunol.* 197: 3271 - 3280. [PubMed](#)
3. Tripathi D, *et al.* 2016. *Nat Commun.* 7:13896. [PubMed](#)
4. Fachi JL, *et al.* 2020. *J Exp Med.* 217:00:00. [PubMed](#)
5. Wang G, *et al.* 2021. *Cell Host Microbe.* 29(5):777-791.e6. [PubMed](#)
6. Mihi B, *et al.* 2021. *Cell Reports Medicine.* 2(6):100320. [PubMed](#)

RRID

AB_2563355 (BioLegend Cat. No. 516409)

Antigen Details

Structure

A cytokine structurally related to IL-10 with a predicted molecular weight of 20 kD.

Distribution

Th17, Th1, Th2, lymphoid tissue inducer cells (LTi), and subsets of natural killer cells.

Function

Acts on nonhematopoietic tissue cells, such as epithelial cells and keratinocytes, involved in inflammatory processes, mucosal immunity, and wound healing.

Cell Type

Th17, Th1, Th2, NK cells

Biology Area

Immunology

Molecular Family

Cytokines/Chemokines

Antigen References

1. Martin B, *et al.* 2009. *Immunity* 31:321.
2. Liang SC, *et al.* 2006. *J. Exp. Med.* 203:2271.
3. Veldhoen M, *et al.* 2008. *J. Exp. Med.* 206:43.
4. Zheng Y, *et al.* 2007. *Nature* 445:648.
5. Dumoutier L, *et al.* 2000. *J. Immunol.* 164:1814.
6. Wolk K, *et al.* 2007. *J. Immunol.* 178:5973.

Gene ID

[50929](#)

Related Protocols

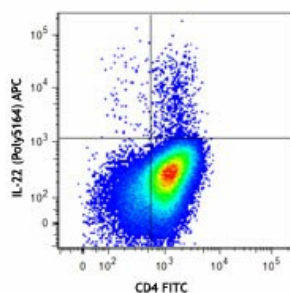
[Intracellular Cytokine Staining Protocol - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

PerCP/Cyanine5.5 anti-mouse IL-22, Purified anti-mouse IL-22, Alexa Fluor® 647 anti-mouse IL-22, PE anti-mouse IL-22, Biotin anti-mouse IL-22, APC anti-mouse IL-22

Product Data



PMA/ionomycin-stimulated (5 hrs) Th17 polarized CD4⁺ T cells were surface stained with CD4 FITC, fixed and permeabilized, and then intracellularly stained with IL-22 (clone Poly5164) APC.

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