

PE anti-human IL-22 Antibody

Catalog# / Size	366703 / 25 tests 366704 / 100 tests
Clone	2G12A41
Regulatory Status	RUO
Other Names	IL22, IL-D110, IL-TIF, ILTIF, MGC79382, MGC79384, TIFIL-23, TIFa, zcyto18
Isotype	Mouse IgG2a, κ
Description	IL-22 is a cytokine that is structurally related to IL-10. Originally identified as a murine gene induced by IL-9 in T and mast cells, IL-22 was initially designated ILTIF, also known as the IL-10-related T cell-derived inducible factor. IL-22 belongs to a family of cytokines with limited homology specifically to IL-10, IL-19, IL-20, IL-24, IL-26, the IFN-As, IL-28A, IL-28B, and IL-29. Human IL-22 shares 79% amino acid identity with murine IL-22 and 25% identity with human IL-10. IL-22 biological activity is initiated by binding to a cell surface complex composed of IL-22R1 and IL-10R2 receptor chains. Its activity is further regulated through interactions with the soluble binding protein, IL-22BP, which shares sequence similarity with an extracellular region of IL-22R1 (sIL-22R1). Both chains of the IL-22R complex belong to the class II cytokine receptor family. Two types of IL-22 binding receptors have been discovered: a membrane-bound receptor and a soluble receptor that are encoded by different genes. IL-22 is produced by Th17 cells and Th22 cells. The use of Iscove's Modified Dulbecco's Medium (IMDM) will result in better <i>in vitro</i> Th17 polarization. It plays a critical role in mucosal immunity in addition to the deregulated inflammation observed in autoimmune diseases.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Full length recombinant protein expressed in <i>E. Coli</i> .
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with PE 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 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Product Citations	<ol style="list-style-type: none"> Di Blasi D, <i>et al.</i> 2019. Cell Mol Gastroenterol Hepatol. 0.510416667. PubMed Britton GJ <i>et al.</i> 2019. Immunity. 50(1):212-224 . PubMed Baban B, <i>et al.</i> 2021. JCI Insight. 6:00. PubMed Nguyen HM, <i>et al.</i> 2020. Mediators Inflamm. 2020:6705428. PubMed Roofchayee ND, <i>et al.</i> 2021. Front Immunol. 12:780453. PubMed Harris LD, <i>et al.</i> 2020. Front Cell Infect Microbiol. 10:120. PubMed
RRID	AB_2565567 (BioLegend Cat. No. 366703) AB_2565568 (BioLegend Cat. No. 366704)

Antigen Details

Structure	Cytokine.
Distribution	Thymic lymphomas, T cells, activated T cells, macrophages, mast cells, and Th17.
Function	Enhances the production of acute phase proteins in HepG2 cells and promotes Th17 cells to transigrate through the blood-brain barrier in multiple sclerosis.
Interaction	IL-22 receptor.
Ligand/Receptor	IL-22R1 and IL-10R2 receptor chains.
Cell Type	T cells, Macrophages, Th17, Mast cells, Embryonic Stem Cells
Biology Area	Immunology, Stem Cells
Molecular Family	Cytokines/Chemokines
Antigen References	<ol style="list-style-type: none">1. Nagalakshmi ML, <i>et al.</i> 2004. <i>Int. Immunopharmacol.</i> 5:679.2. Kebir H., <i>et al.</i> 2007. <i>Nat. Med.</i> 13:1173.3. Gu Y, <i>et al.</i> 2008. <i>Eur. J. Immunol.</i> 38:1807.4. Pene Y, <i>et al.</i> 2008. <i>J. Immunol.</i> 180:7423.5. Dumotier L, <i>et al.</i> 2000. <i>J. Immune</i> 164:1814.6. Xie MH, <i>et al.</i> 2000. <i>J. Biol. Chem.</i> 40:31335.7. Kotenko SV, <i>et al.</i> 2001. <i>J. Immunol.</i> 166:7096.8. Chung Y, <i>et al.</i> 2006. <i>Cell Res.</i> 11:902.9. Trifari S, <i>et al.</i> 2009. <i>Nat. Immunol.</i> 10:864.
Gene ID	50616

Related Protocols

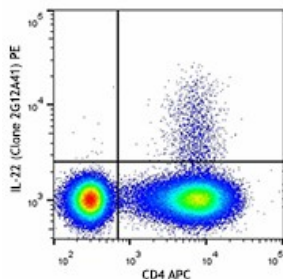
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[Intracellular Flow Cytometry Staining Protocol](#)

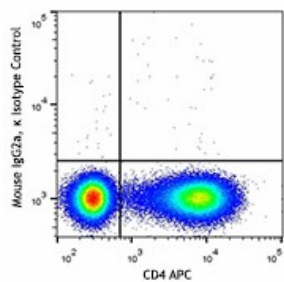
Other Formats

PE anti-human IL-22, APC anti-human IL-22, PerCP/Cyanine5.5 anti-human IL-22, PE/Cyanine7 anti-human IL-22, FITC anti-human IL-22, APC/Fire™ 750 anti-human IL-22, PE/Dazzle™ 594 anti-human IL-22

Product Data



PMA/ionomycin stimulated (six hours in the presence of monensin) human peripheral blood mononuclear cells were stained with CD4 APC, fixed, permeabilized, and stained with IL-22 (clone 2G12A41) PE (top image) or mouse IgG2a, κ PE isotype control (bottom image).



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