

APC/Fire™ 750 anti-human IL-22 Antibody

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| Catalog# / Size | 366713 / 25 tests 366714 / 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 | <p>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.</p> |

Product Details

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| 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 APC/Fire™ 750 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 | <p>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.</p> <p>* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm.</p> |
| Excitation Laser | Red Laser (633 nm) |
| RRID | AB_2734410 (BioLegend Cat. No. 366713) AB_2734411 (BioLegend Cat. No. 366714) |

Antigen Details

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| Structure | Cytokine. |
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| 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

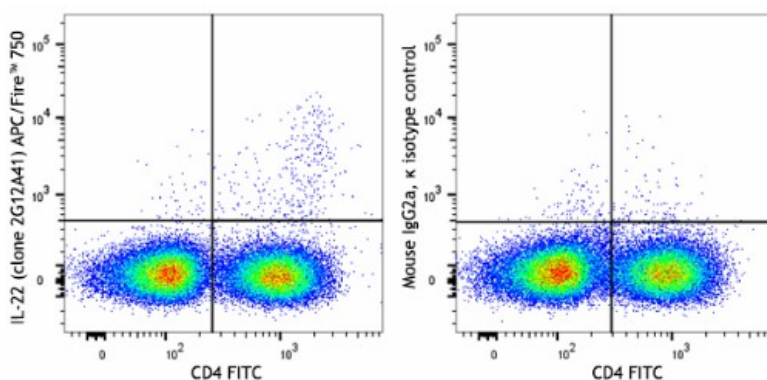
[Surface and Intracellular Cytokine Staining for Flow Cytometry - Video](#)

[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 and ionomycin (5 hours in the presence of Brefeldin A) stimulated human peripheral blood mononuclear cells were stained with CD4 FITC, fixed, permeabilized, and stained with APC/Fire™ 750 mouse IgG2a, κ isotype control (right), or APC/Fire™ 750 IL-22 (clone 2G12A41, left).

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