

Human IL-22 APC-conjugated Antibody

Monoclonal Mouse IgG₁ Clone # 142928

Catalog Number: IC7821A 100 Tests, 25 Tests

DESCRIPTION			
Species Reactivity	Human		
Specificity	Detects human IL-22 in direct ELISAs. In direct ELISAs, this antibody shows 100% cross-reactivity with recombinant mouse IL-22 and recombinant rat IL-22 and no cross-reactivity with recombinant human IL-10.		
Source	Monoclonal Mouse IgG ₁ Clone # 142928		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E. coli-derived recombinant human IL-22 Ala34-lle179 Accession # Q9GZX6		
Conjugate	Allophycocyanin Excitation Wavelength: 620-650 nm Emission Wavelength: 660-670 nm		
Formulation	Supplied in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details.		
	*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.		

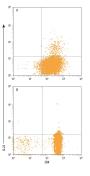
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	10 μL/10 ⁶ cells	See Below

DATA

Intracellular Staining by Flow Cytometry



Detection of IL-22 in Human PBMCs stimulated to induce Th17 Cells by Flow Cytometry. CD4+ Human peripheral blood mononuclear cells (PBMCs) either (A) stimulated to induce Th17 cells with 10 ug/mL Mouse Anti-Human CD3ε Monoclonal Antibody (Catalog # MAB100), 5 ug/mL Mouse Anti-Human CD28 Monoclonal Antibody (Catalog # MAB342), 10 ng/mL Recombinant Human TGF-β1 (Catalog # 240-B), 20 ng/mL Recombinant Human IL-2 (Catalog # 202-IL), 20 ng/mL Recombinant Human IL-23 (Catalog # 1290-IL), 40 ng/mL Recombinant Human IL-6 (Catalog # 206-IL), and 10 ng/mL Recombinant Human IL-1β/IL-1F2 (Catalog # 201-LB) for 5 to 7 days, then re-stimulated with 50 ng/mL PMA and 200 ng/mL Calcium ionomycin for 2 to 4 hours or (B) resting CD4+ PBMCs were stained with Mouse Anti-Human CD4 PE-conjugated Monoclonal Antibody (Catalog # FAB3791P) and Mouse Anti-Human IL-22 APC-conjugated Monoclonal Antibody (Catalog # IC7821A). Quadrant markers were set based on isotype control (Catalog # IC002A). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin. View our protocol for Staining Intracellular Molecules.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage

Protect from light. Do not freeze.

• 12 months from date of receipt, 2 to 8 °C as supplied.

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BACKGROUNE

Interleukin-22 (IL-22), also known as IL-10-related T cell-derived inducible factor (IL-TIF) was initially identified as a gene induced by IL-9 in mouse T cells and mast cells. Human IL-22 cDNA encodes a 179 amino acid (aa) residue protein with a putative 33 aa signal peptide that is cleaved to generate a 147 aa mature protein that shares approximately 79% and 22% aa sequence identity with mouse IL-22 and human IL-10, respectively. The human IL-22 gene is localized to chromosome 12q15. Although it exists as a single copy gene in human and in many mouse strains, the mouse IL-22 gene is duplicated in some mouse strains including C57B1/6, FVB and 129. The two mouse genes designated IL-TIFα and IL-TIFβ, share greater than 98% sequence homology in their coding region. IL-22 has been shown to activate STAT1 and STAT3 in several hepatoma cell lines and upregulate the production of acute phase proteins. IL-22 is produced by normal T cells upon anti-CD3 stimulation in humans. Mouse IL-22 expression is also induced in various organs upon lipopolysaccharide injection, suggesting that IL-22 may be involved in inflammatory responses. The functional IL-22 receptor complex consists of two receptor subunits, IL-22 R (previously an orphan receptor named CRF2-9) and IL-10Rβ (previously known as CRF2-4), belonging to the class II cytokine receptor family.

References:

- 1. Dumoutier, L. et al. (2000) J. Immunol. 164:1814.
- Xie, M-H. et al. (2000) J. Biol. Chem. 275:31335.
- 3. Dumoutier, L. et al. (2000) Proc. Natl. Acad. Sci. USA 97:10144.
- 4. Kotenko, S.V. et al. (2001) J. Biol. Chem. 276:2725.

