Human IL-22 PerCP-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 142928

Catalog Number: IC7821C
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-Ile179 Accession # Q9GZX6
Conjugate	PerCP (Peridinin-chlorophyll Protein Complex) Excitation Wavelength: 482 and 564 nm Emission Wavelength: 675 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.

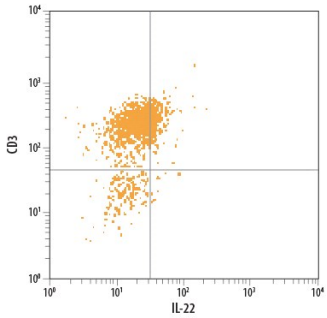
APPLICATIONS

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 by Flow Cytometry. Human peripheral blood mononuclear cells (PBMCs) treated with PMA, Ca^{++} Ionomycin, LPS, and Recombinant Human IL-23 (Catalog # 1290-IL) were stained with Mouse Anti-Human IL-22 PerCP-conjugated Monoclonal Antibody (Catalog # IC7821C) and Mouse Anti-Human CD3ε Fluorescein-conjugated Monoclonal Antibody (Catalog # FAB100F). Quadrant markers were set based on control antibody staining (Catalog # IC002C). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). 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.

BACKGROUND

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.
2. 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.

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