Human IL-12 Antibody

Monoclonal Rat IgG_1 Clone # 1070229

Catalog Number: MAB11485

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IL-12 in direct ELISA.
Source	Monoclonal Rat IgG_1 Clone # 1070229
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*Spodoptera frugiperda*, Sf 21 (baculovirus)-derived human IL-12
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose.

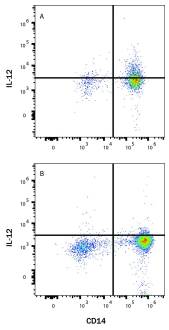
APPLICATIONS

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	0.25 µg/10^6 cells	See details below

DATA

Intracellular Staining by Flow Cytometry



Detection of IL-12 in PBMC monocytes +/- hIFN-gamma/LPS by Flow Cytometry
PBMC monocytes treated with IFN-gamma (Catalog # 285-IF, 10 ng/mL for 2 hours), then LPS (100 ng/mL for 12 hours), and lastly monensin (3 µM for 3 hours) (A) vs naïve PBMC monocytes (B) were stained with Rat Anti-Human IL-12 Monoclonal Antibody (Catalog # MAB11485) followed by Allophycocyanin-conjugated Anti-Rat IgG Secondary Antibody (Catalog # F0113) and subsequently Mouse Anti-Human CD14 PE-conjugated Monoclonal Antibody (Catalog # FAB3832P. 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

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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BACKGROUND

Interleukin 12, also known as natural killer cell stimulatory factor (NKSF) or cytotoxic lymphocyte maturation factor (CLMF), is a pleiotropic cytokine originally identified in the medium of activated human B lymphoblastoid cell lines. The p40 subunit of IL-12 has been shown to have extensive amino acid sequence homology to the extracellular domain of the human IL-6 receptor while the p35 subunit shows distant but significant sequence similarity to IL-6, G-CSF, and chicken MGF. These observations have led to the suggestion that IL-12 might have evolved from a cytokine/soluble receptor complex. Human and murine IL-12 share 70% and 60% amino acid sequence homology in their p40 and p35 subunits, respectively. IL-12 apparently shows species specificity with human IL-12 reportedly showing minimal activity in the murine system.

IL-12 is produced by macrophages and B lymphocytes and has been shown to have multiple effects on T cells and natural killer (NK) cells. These effects include inducing production of IFN-γ and TNF by resting and activated T and NK cells, synergizing with other IFN-γ inducers at both the transcriptional and post-transcriptional levels. This interaction induces IFN-γ gene expression, enhancing the cytotoxic activity of resting NK and T cells, inducing and synergizing with IL-2 in the generation of lymphokine-activated killer (LAK) cells, acting as a co-mitogen to stimulate proliferation of resting T cells, and inducing proliferation of activated T and NK cells. Current evidence indicates that IL-12, produced by macrophages in response to infectious agents, is a central mediator of the cell-mediated immune response by its actions on the development, proliferation, and activities of TH1 cells. In its role as the initiator of cell-mediated immunity, it has been suggested that IL-12 has therapeutic potential as a stimulator of cell-mediated immune responses to microbial pathogens, metastatic cancers, and viral infections such as AIDS.

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