Human IFN-γ Alexa Fluor® 750-conjugated Antibody

Monoclonal Mouse IgG_{2B} Clone # 25723
Catalog Number: IC285S
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human IFN-γ in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse IFN-γ, recombinant rat IFN-γ, or recombinant porcine IFN-γ is observed. Neutralizes the bioactivity of recombinant human IFN-γ and will not neutralize the activity of rat or mouse IFN-γ.
Source	Monoclonal Mouse IgG_{2B} Clone # 25723
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E. coli*-derived recombinant human IFN-γ Gln24-Gln166 Accession # AAP20098.1
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. *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	0.25-1 µg/10^6 cells	Human peripheral blood mononuclear cells treated with PMA, Ionomycin, and Monensin fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012)

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

Interferon-gamma (IFN-gamma, IFNG), also known as type II or Immune Interferon, exerts a wide range of immunoregulatory activities and is considered to be the prototype proinflammatory cytokine. Mature human IFN-gamma exists as a non-covalently linked homodimer of 20-25 kDa molecular weight variably glycosylated subunits. Glycosylation of IFN-gamma at sites Asn25 and Asn97 is critical for protease resistance. It shares 90% amino acid (aa) sequence identity with rhesus IFN-gamma, 59-64% with bovine, canine, equine, feline, and porcine IFN- gamma, and 37-43% with cotton rat, mouse, and rat IFN-gamma. IFN-gamma dimers bind to IFN-gamma RI (alpha subunits) which then interact with IFN-gamma RII (beta subunits) to form the functional receptor complex of two alpha and two beta subunits. Inclusion of IFN-gamma RII increases the binding affinity for ligand and the efficiency of signal transduction. IFN-gamma is produced by a variety of immune cells under inflammatory conditions, notably by T cells and NK cells. It plays a key function in host defense by promoting the development and activation of Th1 cells, chemoattraction and activation of monocytes and macrophages, up-regulation of antigen presentation molecules, and immunoglobulin class switching in B cells. It also exhibits antiviral, antiproliferative, and apoptotic effects. In addition, IFN-gamma functions as an anti-inflammatory mediator by promoting the development of regulatory T cells and inhibiting Th17 cell differentiation. The pleiotropic effects of IFN-gamma contribute to the development of multiple aspects of atherosclerosis.

PRODUCT SPECIFIC NOTICES

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