

DESCRIPTION

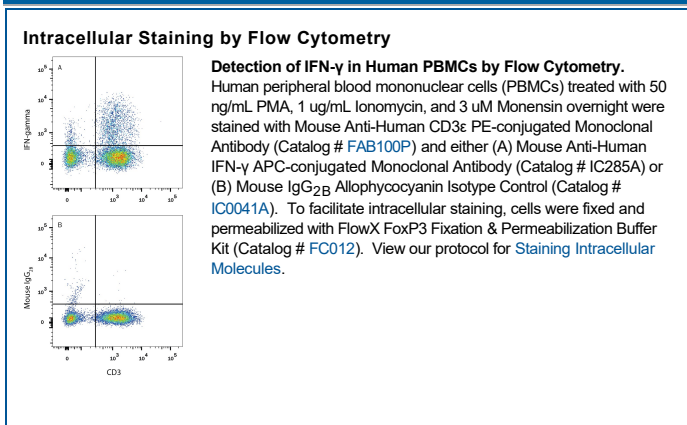
Species Reactivity	Human
Specificity	Detects human IFN- γ in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse IFN- γ , recombinant rat IFN- γ , or recombinant porcine IFN- γ is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 25723
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human IFN- γ Gln24-Gln166 Accession # AAP20098.1
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 μ L/10 ⁶ cells	See Below

DATA



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. <ul style="list-style-type: none"> 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.