

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse IFN-γ in direct ELISAs. Does not cross-react with rat, cotton rat, human, rhesus macaque, porcine, feline, or canine IFN-γ.
Source	Monoclonal Hamster IgG Clone # H22
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse IFN-γ Accession # P01580
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% 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.

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

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-γ, 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-γ exists as a non-covalently linked homodimer of 20-25 kDa molecular weight variably glycosylated subunits. It shares 86% amino acid (aa) sequence identity with rat IFN-γ, 38-44% with bovine, canine, cotton rat, equine, feline, human, porcine and rhesus IFN-γ. IFN-γ dimers bind to IFN-γ RI (α subunits) which then interact with IFN-γ RII (β subunits) to form the functional receptor complex of two α and two β subunits. Inclusion of IFN-γ RII increases the binding affinity for ligand and the efficiency of signal transduction. IFN-γ 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-γ functions as an anti-inflammatory mediator by promoting the development of regulatory T cells and inhibiting Th17 cell differentiation. The pleiotropic effects of IFN-γ contribute to the development of multiple aspects of atherosclerosis.

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