Recombinant human IFNg

Catalog No: #AG0024

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Description

Product Name	Recombinant human IFNg
Host Species	HEK293
Purification	> 95% by Tris-Bis PAGE;> 95% by SEC-HPLC
Immunogen Description	Glu24-Gln166
Target Name	IFNg
Other Names	Human IFG Protein, Human IFI Protein, Human IFN gamma Protein, Human Interferon Gamma Protein
Accession No.	Uniprot:P01579Gene ID:3458
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GeneID	3458
Target Species	human
Calculated MW	16.8 KDa
Tag Info	addtional amino acid free
Formulation	0.22 μm filtered solution of PBS, pH 7.4.
Storage	Aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.

Background

Interferon-gamma (IFN-gamma), also known as type II or immune interferon, exerts a wide range of immunoregulatory activities and is considered to be the prototype proinflammatory cytokine (1, 2). Mature human IFN-gamma exists as a non-covalently linked homodimer of 20-25 kDa variably glycosylated subunits (3). 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 (4, 5). IFN-gamma is produced by a variety of immune cells under inflammatory conditions, notably by T cells and NK?cells (6). It plays a key role 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 (6, 7). In addition, IFN-gamma functions as an anti-inflammatory mediator by promoting the development of regulatory T cells and inhibiting Th17 cell differentiation (8, 9). The pleiotropic effects of IFN-gamma contribute to the development of multiple aspects of atherosclerosis (7).

Note: This product is for in vitro research use only