Mouse IFNG / Interferon Gamma Protein (Fc Tag)

Catalog Number: **50709-M02H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

Ifg; IFN-g

Protein Construction:

A DNA sequence encoding the mouse IFNG (P01580) (Met 1-Cys 155) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 92 % as determined by SDS-PAGE

Bio Activity:

1. Measured in antiviral assays using L929 cells infected with vesicular stomatitisvirus (VSV).The ED_{50} for this effect is 2.5-15 ng/mL.. 2. Measured by its ability to bind with recombinant mouse IFNGR1-His (Cat:50705-M08H) in a functional ELISA.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: His 23

Molecular Mass:

The secreted recombinant mouse IFNG/Fc is a disulfide-linked homodimer. The reduced monomer comprises 374 amino acids and has a calculated molecular mass of 42.5 kDa. As a result of glycosylation, the apparent molecular mass of the monomer is approximately 55 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

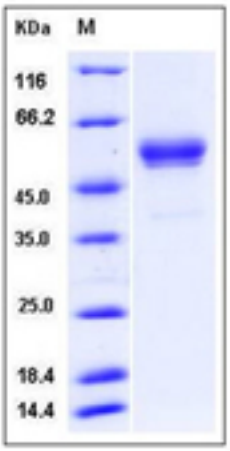
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

IFN gamma, also known as IFNG, is a secreted protein which belongs to the type I I interferon family. IFN gamma is produced predominantly by natural killer and natural killer T cells as part of the innate immune response, and by CD4 and CD8 cytotoxic T lymphocyte effector T cells once antigen-specific immunity develops. IFN gamma has antiviral, immunoregulatory, and anti-tumor properties. IFNG, in addition to having antiviral activity, has important immunoregulatory functions, it is a potent activator of macrophages, and has antiproliferative effects on transformed cells and it can potentiate the antiviral and antitumor effects of the type I interferons. The IFNG monomer consists of a core of six α-helices and an extended unfolded sequence in the C-terminal region. IFN gamma is critical for innate and adaptive immunity against viral and intracellular bacterial infections and for tumor control. Aberrant IFN gamma expression is associated with a number of autoinflammatory and autoimmune diseases. The importance of IFN gamma in the immune system stems in part from its ability to inhibit viral replication directly, and most importantly from its immunostimulatory and immunomodulatory effects. IFNG also promotes NK cell activity.

References

1.Gray P W, *et al.* (1982) Structure of the human immune interferon gene. Nature. 298: 859-63. 2.Taya Y, *et al.* (1982) Cloning and structure of the human immune interferon-gamma chromosomal gene. EMBO J. 1: 953-8. 3.Goshima N, *et al.* (2008) Human protein factory for converting the transcriptome into an in vitro-expressed proteome. Nomura N Nat Methods. 5: 1011-7.