

Rat IFNG / Interferon Gamma Protein (Fc Tag)



Sino Biological Inc.

Biological Solution Specialist

Catalog Number: 80234-R02H

General Information

Gene Name Synonym:

IFNG2

Protein Construction:

A DNA sequence encoding the rat IFNG (P01581) (Met 1-Cys 156) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Rat

Expression Host: Human 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 ED50 for this effect is typically 1-5 ng/mL.
2. Measured by its binding ability in a functional ELISA. Immobilized rat IFNG-Fc (cat:80234-R02H) at 10 µg/ml (100 µl/well) can bind biotinylated rat IFNGR-Fc (Cat:80182-R02H). The EC50 of biotinylated rat IFNGR-Fc (Cat:80182-R02H) is 20.1-46.9 ng/ml.

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 °C

Predicted N terminal: Gln 23

Molecular Mass:

The secreted recombinant rat IFNG/Fc is a disulfide-linked homodimer. The reduced monomer comprises 375 amino acids and predicts a molecular mass of 42.5 kDa. The apparent molecular mass of the rat IFNG/Fc monomer is approximately 52 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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

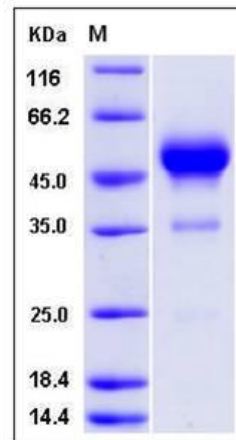
Usage Guide

Storage:

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

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

The protein IFN-γR1 (IFNGR1) is the ligand-binding chain(α) of the high-affinity interferon gamma receptor complex which is a heterodimer of IFN-γ R1 (IFN-γ Rα) and IFN-γ R2 (IFN-γ Rβ). IFN-γ R1 is necessary and sufficient for IFN-γ binding and receptor internalization, whereas IFN-γ R2 is required for IFN-γ signal transduction, but does not bind IFN-γ by itself. IFN-γ R1 is constitutively expressed in most cell types and soluble IFN-γ R1 has been detected in biological fluids. Human IFN-γ R1 cDNA encodes a 499 aa residue protein consisting of a 17 aa signal peptide, a 228 aa extracellular domain, a 23 aa transmembrane domain, and a 221 aa intracellular domain. Upon binding to IFN-γ receptor via its C-terminus, the type II interferon IFN gamma triggers multiple intracellular signalling processes including prevention of viral replication, inhibition of cell growth, modulation of cell differentiation, and induction of growth arrest at mid-G1 in different mammary carcinoma cell lines. A genetic variation or deficiency in IFN-γR1 is associated with susceptibility to Helicobacter pylori infection or mycobacterial disease.

References

1. Greenlund AC. et al., 1994, EMBO J. 13: 1591-600.
2. Bach EA. et al., 1997, Annu Rev Immunol. 15: 563-91.
3. Szente BE. et al., 1994, Biochem Biophys Res Commun. 203: 1645-54.
4. Schroder K. et al., 2004, J Leukoc Biol. 75:163-89.

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