Rat IFNGR / IFNGR1 Protein (Fc Tag)

Catalog Number: **80182-R02H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IFNGR1

Protein Construction:

A DNA sequence encoding the rat IFNGR (Q6P6T3) (Met1-Ser241) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Rat

Expression Host: HEK293 Cells

QC Testing

Purity: (22.7+76.3) % as determined by SDS-PAGE

Bio Activity:

1. Measured by its binding ability in a functional ELISA. Immobilized rat IFNGR-Fc (cat:80182-R02H) at 10 μg/ml (100 μl/well) can bind biotinylated rat IFNG-Fc (Cat:80234-R02H). The EC_{50} of biotinylated rat IFNG-Fc (Cat:80234-R02H) is 0.10-0.24 μg/ml. 2. Measured by its ability to inhibit rat IFNγ-mediated protection of L929 cells infected with vesicular stomatitisvirus (VSV). The ED_{50} for this effect is typically 0.5-4 ng/mL in the presence of 10 ng/mL of recombinant rat IFN-gamma.

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: Ala 17

Molecular Mass:

The recombinant rat IFNGR/Fc is a disulfide-linked homodimer. The reduced monomer comprises 466 amino acids and has a predicted molecular mass of 52.4 kDa. The apparent molecular mass of the protein is approximately 117 and 65-80 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:

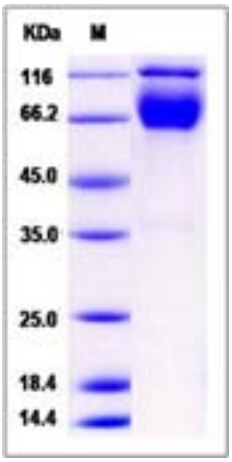
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

The cluster of differentiation (CD) system is commonly used as cell markers in immunophynotyping. Different kinds of cells in the immune system can be identified through the surface CD molecules which associating with the immune function of the cell. There are more than 320 CD unique clusters and subclusters have been identified. Some of the CD molecules serve as receptors or ligands important to the cell through initiating a signal cascade which then alter the behavior of the cell. Some CD proteins do not take part in cell signal process but have other functions such as cell adhesion. CD119 (cluster of differentiation 119), also known as IFNGR1 (interferon gamma receptor 1), is part of the heterodimeric gamma interferon receptor which consists of IFNGR1 (CD119) and IFNGR2. The IFNGR1 gene encodes the ligand-binding chain (alpha) of the interteron receptor while IFNGR gene encodes the non-ligand binding partner. The ability of the interferon-γ was achieved through binding to the interferon receptor CD119. After binding, the products of activated T-lymphocytes interferon-γ exerts antiviral activity, growth inhibitory effect, and several immune- regulatory activities on a variety of cell types.

References

1.Zola H, *et al.* (2007) CD molecules 2006-human cell differentiation molecules. J Immunol Methods. 318 (1-2): 1-5. 2.Ho IC, *et al.* (2009) GATA3 and the T-cell lineage: essential functions before and after T-helper-2-cell differentiation. Nat Rev Immunol. 9 (2): 125-35. 3.Matesanz-Isabel J, *et al.* (2011) New B-cell CD molecules. Immunology Letters.134 (2): 104-12