# Recombinant Rat Interferon y/IFNG Protein (Fc Tag)

Catalog Number: PKSR030428 1 Publications



Note: Centrifuge before opening to ensure complete recovery of vial contents.

### **Description**

**Synonyms** IFNG2 **Species** Rat

**Expression Host** HEK293 Cells **Sequence** Val 117-Ser 268

P01581 Accession Calculated Molecular Weight 42.5 kDa 52 kDa Observed molecular weight C-hFc Tag

**Bioactivity** 1. Measured in antiviral assay using L929 cells infected with vesicular

stomatitisvirus (VSV). The ED50 for this effect is typically 1-5 ng/mL.

2. Immobilized rat IFNG-Fc at 10 µg/ml (100 µl/well) can bind biotinylated rat IFNGR-Fc. The EC50 of biotinylated rat IFNGR-Fc is 20.1-46. 9 ng/ml.

## **Properties**

**Purity** > 92 % as determined by reducing SDS-PAGE.

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

Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to **Storage** 

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at < -20°C for 3 months.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from sterile PBS, pH 7.4

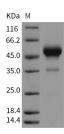
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

Reconstitution Please refer to the printed manual for detailed information.

#### Data



> 92 % as determined by reducing SDS-PAGE.

### **Background**

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

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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  $\alpha$ -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.

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