# Rhesus IFNG / Interferon Gamma Protein

**Catalog Number:** 90008-CNAE

## General Information

**Gene Name Synonym:**

IFNG

**Protein Construction:**

A DNA sequence encoding the rhesus IFNG (NP_001028077.1) (Gln24-Gln165) was expressed and purified with an initial Met.

**Source:** Rhesus

**Expression Host:** E. coli

## QC Testing

**Purity:** > 90 % as determined by SDS-PAGE

**Bio Activity:**

**1. Immobilized Rhesus IFNG (cat：90008-CNAE）at 10 μg/ml (100 μl/well) can bind Rhesus IFNGR1-Fc (Cat:90207-C02H). The $EC_{50}$ of Rhesus IFNGR1-Fc (Cat:90207-C02H) is 20.28-47.32 ng/ml. 2. Measured in antiviral assays using WISH cells infected with vesicular stomatitisvirus (VSV). The $ED_{50}$ for this effect is 6-48 pg/mL.**

**Endotoxin:**

Please contact us for more information.

**Predicted N terminal:** Met

**Molecular Mass:**

The recombinant rhesus IFNG consists of 143 amino acids and has a calculated molecular mass of 16.9 kDa.

**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

**Stability & Storage:**
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

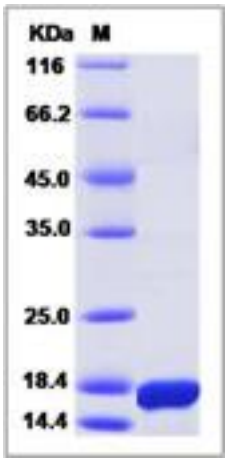
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

**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 that belongs to the type II 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 tumor control. Aberrant IFN gamma expression is associated with some 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.