

## Recombinant Human IFN gamma

Catalog # (Size):    HZ-1301 (10µg)    HZ-1302 (100µg)    HZ-1303 (1000µg)

### Product Description

- Animal-derived product free
- High Activity
- Lyophilized and Carrier Free (CF)
- Glycosylated

Interferon gamma (IFN  $\gamma$ ), is a cytokine also known as type II interferon that provides immunity against bacterial, viral and protozoan infections. In its active form, IFN  $\gamma$  occurs as a glycosylated, non-covalently linked homodimer of 29-32 kDa subunits. It is produced by a number of immune cell types such as the natural killer cells, natural killer T cells, and effector lymphocyte T cells following antigenic and inflammatory triggers. Following secretion, the IFN  $\gamma$  dimer binds to its receptor which has two subunits: IFN- $\gamma$ R1 which is the ligand-binding chain ( $\alpha$  chain) and IFN- $\gamma$ R2, the signal-transducing chain ( $\beta$  chain). The activation of the IFN  $\gamma$  receptor leads to activation of the JAK/STAT pathway which in turn activates IFN  $\gamma$  responsive genes. While IFN  $\gamma$  can inhibit viral replication, it also works as an immune-modulator and immune-stimulator by increasing surface expression of class I MHC proteins.

### Typical Specifications

<b>Species</b>	Human
<b>Expression</b>	HEK293 Cell Expressed
<b>Activity</b>	Typically $\leq 0.05$ ng/mL EC <sub>50</sub>
<b>Purity</b>	>95%
<b>Endotoxin</b>	<1 EU/µg
<b>Molecular Mass</b>	29-32 kDa
<b>Formulation</b>	1x PBS

### Purity Confirmation

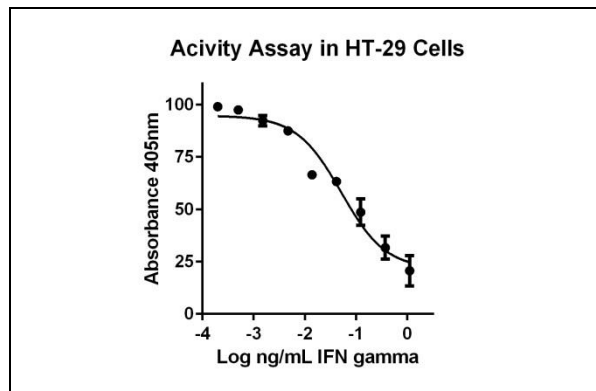
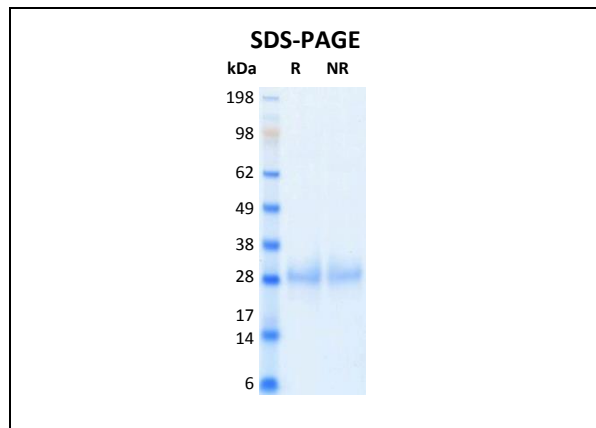
The protein was resolved by SDS-polyacrylamide gel electrophoresis and the gel was stained with Coomassie blue.

### Activity Assay

The activity was determined by dose dependent inhibition of proliferation of HT-29 cells.



All HumaXpress® HumanKine™ are animal-component-free and Xeno-free™



### Reference

Billiau A & Matthys P. (2009) Interferon-gamma: a historical perspective. *Cytokine Growth Factor Rev* 20(2): 97–113.  
Schroder K et al. (2004) Interferon-gamma: an overview of signals, mechanisms and functions. *J Leukoc Biol* 75(2): 163–89

### Reconstitution Buffer

Briefly centrifuge the vial before opening. It is recommended to reconstitute the protein in sterile 1x PBS containing 0.1% endotoxin-free recombinant human albumin (HSA).

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