GMP Grade, Recombinant Human IFN-γ

Cat#: C-BETA013

Size: 100μg, 1mg

Source: *Escherichia coli.*

Product Information

Molecular Weight: Approximately 16.9kDa, a single non-glycosylated polypeptide chain containing 143 amino acids.

Description : Accession # CAA31639, Gln24-Gln166, with an N terminal Met.

SDS-PAGE: 16.9 kDa, reducing conditions

Purity: > 95 %, as determined by SDS-PAGE, under reducing non-reducing conditions, visualized by coomassie staining.

Endotoxin: Less than 0.01 EU/μg of IFN-γ as determined by kinetic Limulus Amoebocyte Lysate (LAL) assay.

Biological Activity: Recombinant human IFN-γ bioactivity is measured by inhibition of the proliferation of HT-29 cells, the EC50 for this effect is 8.342-14.89 ng/mL.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 μm filtered concentrated solution in PBS with trehalose.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute to a concentration of 0.1-1.0 mg/mL in **sterile distilled H_2O**. Stock solutions should be apportioned into working aliquots and stored at-20°C to -70°C. Further dilutions should be made in appropriate buffered solutions. **Do not reconstitute in cell culture media directly**.

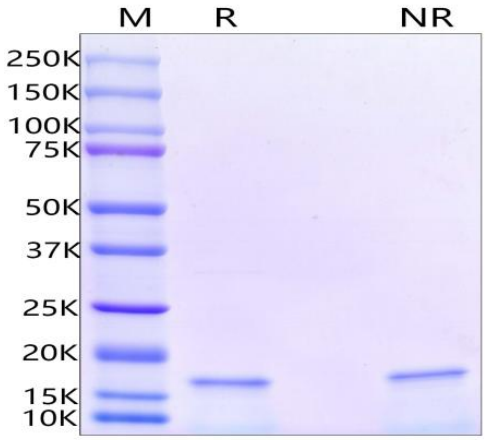
Shipping: 2°C to 8°C. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze-thaw cycles. A minimum of 12 months from date of shipping when stored at -20°C to -70°C as supplied. 4 weeks at 2°C to 8°C under sterile conditions after reconstitution. 4 months at -20°C to -70°C under sterile conditions after reconstitution

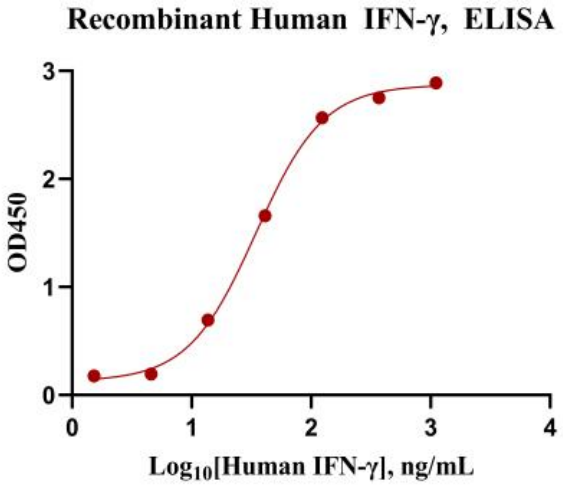
Usage: Biogradetech IFN-γ product can be used for a variety of ex vivo cell culture applications such as research or further manufacturing.

Quality statement: No animal- or human-derived materials were used for the manufacture of this product, unless otherwise stated in the respective Certificate of Origin.

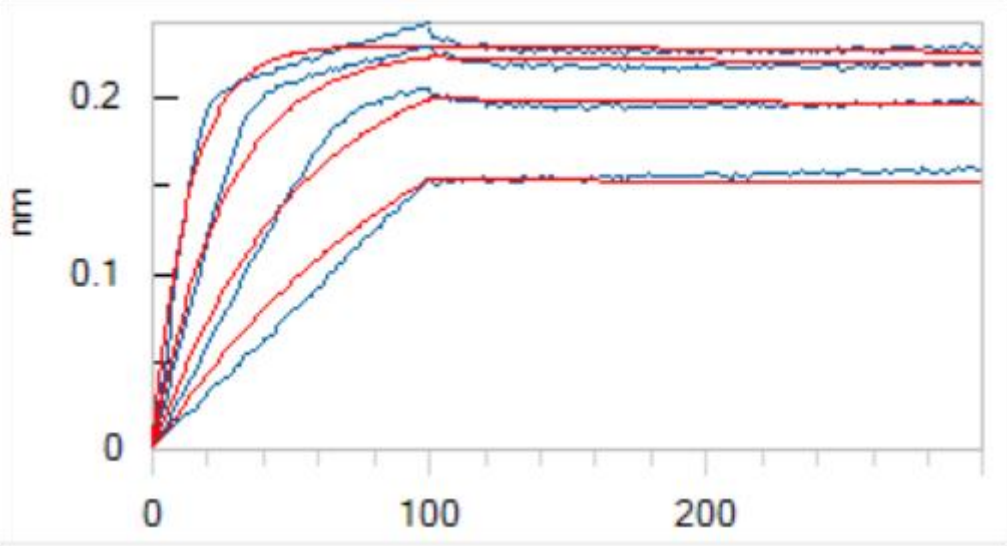
DATA



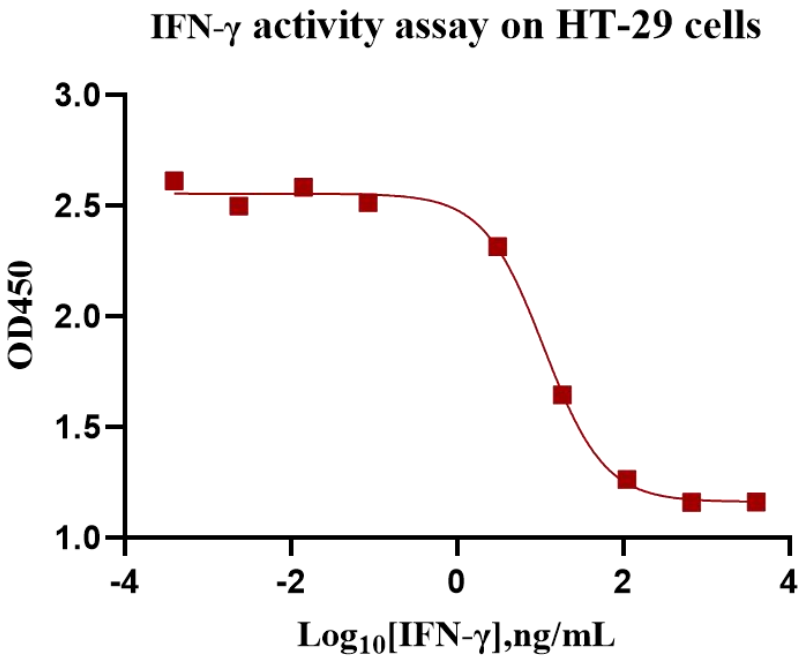
SDS-PAGE: Recombinant Human IFN-γ Protein SDS-PAGE 1 μg/lane of Recombinant Human IFN-γ(Catalog# C-BETA013) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions visualized by coomassie staining showing a single band at about 16 kDa.



Bioactivity-ELISA: Immobilized Recombinant Human IFN-γ (Catalog# C-BETA013) at 0.2 μg/well can bind Human IFN-γ R1 with a linear range of 31.0 to 38.37 ng/mL.



Bioactivity-BLI: Loaded Human IFN-γ R1, can bind Recombinant Human IFN-γ (Catalog# C-BETA013) with an affinity constant of 0.051 nM as determined in BLI assay (Octet®R8).



Bioactivity-Cell based assay: Recombinant human IFN-γ bioactivity is measured by inhibition of the proliferation of HT-29 cells, the EC50 for this effect is 8.342-14.89 ng/mL.

References

1. Kak, Gunjan, Raza, Mohsin and Tiwari, Brijendra K. "Interferon-gamma (IFN-γ): Exploring its implications in infectious diseases" Biomolecular Concepts, vol. 9, no. 1, 2018, pp. 64-79.

2. Heekyong Bae, Alec T. Barlow, Howard Young, Julio C. Valencia, Interferon γ : An Overview of Its Functions in Health and Disease,Editor(s): Michael J.H. Ratcliffe, Encyclopedia of Immunobiology, Academic Press, 2016, Pages 494-500.

Note:

The product listed herein is for research use only and is not intended for use in human or clinical diagnosis.