Recombinant Human IFN-gamma Protein

Catalog No.: RP01038

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Sequence Information

Species
Human

Gene ID
3458

Swiss Prot
P01579-1

Tags
No tag

Synonyms
IFNG,IFG,IFI

Product Information

Source
E. coli

Purification
≥ 95 % as determined by SDS-PAGE;≥ 95 % as determined by HPLC.

Calculated MW
16.78 kDa

Observed MW
17 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Interferon-gamma (IFN-gamma) is a secreted protein which belongs to the type II interferon family.Recombinant Human IFN-gamma is a 16.8 kDa protein containing 143 amino acid residues. IFN-gamma is produced by a variety of immune cells under inflammatory conditions, notably by T cells and NK cells. IFN-gamma, in addition to having antiviral activity, has important immunoregulatory functions. Interferon-gamma is a central regulator of the immune response and signals via the Janus Activated Kinase (JAK)-Signal Transducer and Activator of Transcription (STAT) pathway.

Basic Information

Description
Recombinant Human IFN-gamma Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Gln24-Gln166) of human Interferon Gamma (Accession #NP_000610.2).

Activity
1.Measured by its binding ability in a functional ELISA. Immobilized Human FNGR1/CD119 at 1 μg/mL (100 μL/well) can bind Human IFNG with a linear range of 0.98-1.97 ng/mL.
2.Measured in a cytotoxicity assay using HT-29 cells. The ED_{50} for this effect is 0.74-2.96 ng/mL, corresponding to a specific activity of 3.38×10^5~1.35×10^6 units/mg.
3.Flow cytometry: $1X10^6$ A549 cells treated with IFN-γ (RP01038,1 ng/mL) were surface-stained with PE Rabbit IgG isotype control (A24172,5 μl/Test, left) or PE Rabbit anti-Human PD-L1/CD274 mAb (A26692,5 μl/Test,right).
4.Flow cytometry: $1X10^6$ NCI-H460 cells treated with IFN-γ (RP01038,1 ng /mL) were surface-stained with PE Rabbit IgG isotype control (A24172,5 μl /Test,left) or PE Rabbit anti-Human PD-L1/CD274 mAb (A26692,5 μl/Test, right)

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

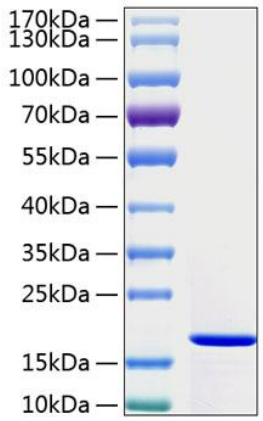
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

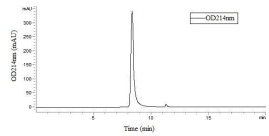
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Please visit http://abclonal.com for a complete listing of recommended products.

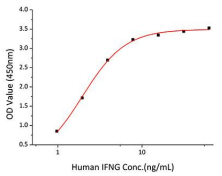
Validation Data



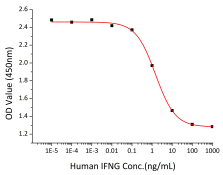
Recombinant Human IFN-gamma Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



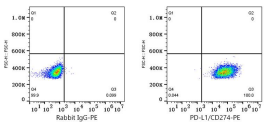
The purity of Recombinant Human IFN-gamma Protein is greater than 95% as determined by SEC-HPLC.



Immobilized Human FNGR1/CD119 at 1 μg/mL (100 μL/well) can bind Human IFNG with a linear range of 0.98-1.97ng/mL.



Recombinant Human IFN-gamma induces cytotoxicity in the HT-29 cells. The ED_{50} for this effect is 0.74-2.96 ng/mL, corresponding to a specific activity of 3.38×10^5~1.35×10^6 units/mg.



Flow cytometry: $1X10^6$ NCI-H460 cells treated with IFN-γ (RP01038,1 ng/mL) were surface-stained with PE Rabbit IgG isotype control (A24172,5 μl/Test,left) or PE Rabbit anti-Human PD-L1/CD274 mAb (A26692,5 μl/Test,right)