Recombinant Human Interferon γ/IFNG Protein

Catalog Number: PKSH031025

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

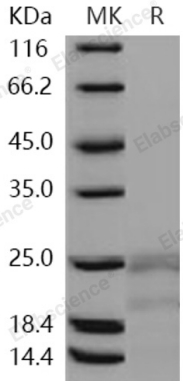
Description

Species	Human
Source	CHO Stable Cells-derived Human Interferon γ/IFNG protein Met 1-Gln 166
Calculated MW	16.7 kDa
Observed MW	21 kDa/25 kDa
Accession	NP_000610.2
Bio-activity	Measured in antiviral assays using WISH cells infected with vesicular stomatitisvirus (VSV). The ED_{50} for this effect is 0.02-0.2 ng/mL.

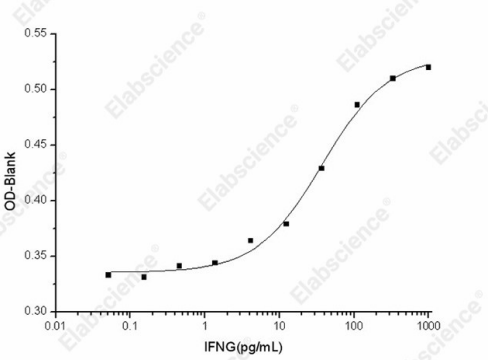
Properties

Purity	> 92% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -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% Tween 80 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



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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 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 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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