Data Sheet (Cat.No.TMPY-02516)

TargetMol

Interferon alpha 10/IFNA10 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	interferon, α10;interferon, alpha 10;IFN-alphaC;MGC119879;MGC119878;Interferon α10/IFNA10;IFN-αC
Protein Construction:	A DNA sequence encoding the human IFNA10 (P01566) (Cys 24-Asp 189) was fused with the Fc region of human IgG1 at the N-terminus. Predicted N terminal: Glu
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P01566
Molecular Weight:	48 kDa (predicted); 50 kDa (reducing conditions)

QC Testing

Biological Activity:	Measured in antiviral assays using WISH human amnion cells infected with vesicular stomatitisvirus (VSV). The ED50 for this effect is 20-80 pg/mL.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Interferon alpha-10 (IFNA10) is a member of the interferon family. Interferons belong to the group of the regulatory glycoproteins, of low molecular mass. They are the products of infected cell-genome, but not virus, as a consequence of the cause answer by different inductors. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase. They allow communication between cells to trigger the

protective defenses of the immune system that eradicate pathogens or tumors. IFNs have other functions: they activate immune cells, such as natural killer cells and macrophages; they increase recognition of infection or tumor cells by up-regulating antigen presentation to T lymphocytes, and they increase the ability of uninfected host cells to resist new infection by the virus. Certain host symptoms, such as aching muscles and fever, are related to the production of IFNs during infection. Human IFNs are divided on the sequence of amino-acids into three groups: Alpha, Beta, and Gamma interferons.

Reference

De Veer MJ, et al. (2001) Functional classification of interferon-stimulated genes identified using microarrays. J Leukoc Biol. 69 (6): 912-20.
Liu YJ. (2005) IPC: professional type 1 interferon-producing cells and plasmacytoid dendritic cell precursors. Annu Rev Immunol. 23: 275-306.
Fensterl V, et al. (2009) Interferons and viral infections. Biofactors. 35 (1): 14-20.