Data Sheet (Cat.No.TMPY-02661)

TargetMol

Interferon alpha 2/IFNA2 Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	Ifa2;interferon, alpha 2;interferon, α2;Interferon α2/IFNA2
Protein Construction:	A DNA sequence encoding the mouse IFNA2 (P01573?) (Cys 24-Glu 190) was fused with the Fc region of human IgG1 at the N-terminus. Predicted N terminal: Glu
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P01573
Molecular Weight:	47.8 kDa (predicted); 52 kDa (reducing conditions)

QC Testing

Biological Activity:	1. Measured in antiviral assays using L929 cells infected with vesicular stomatitisvirus (VSV). The ED50 for this effect is 1-8 ng/mL. 2. Immobilized Mouse IFNAR1 His at 2 μg/mL (100 μL/well) can bind Mouse Interferon alpha 2/IFNA2 hFc , the EC50 of Mouse Interferon alpha 2/IFNA2 hFc is 10-80 ng/mL.
Purity:	> 88 % 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

IFNA2 (Interferon Alpha 2) is a Protein Coding gene. This gene is a member of the alpha interferon gene cluster on chromosome 9. The encoded protein is a cytokine produced in response to viral infection. Type I Interferons (IFNs) are well-known cytokines that exert antiviral activity, antitumor activity, and immunomodulatory effects. Interferon

tau (IFNT), a type I IFN similar to alpha IFNs (IFNA), is the pregnancy recognition signal produced by the ruminant conceptus. Among the IFN-α genes, a total of 28 different sequence variants have been described. The three principal subtypes of IFNα-2 are designated α-2a, α-2b, and α-2c. IFNα-2b is being the predominant allele while IFNα-2a is less predominant and IFNα-2c only a minor allelic variant.

Reference

Wang,et al.(2004) Fever of recombinant human interferon-alpha is mediated by opioid domain interaction with opioid receptor inducing prostaglandin E2. J Neuroimmunol. 156(1-2): 107-12.
Groopman JE,et al.(1984) Recombinant alpha-2 interferon therapy for Kaposi's sarcoma associated with the acquired immunodeficiency syndrome. Ann Intern Med. 100(5): 671-6.
Krueger JM,et al.(1987) Interferon alpha-2 enhances slow-wave sleep in rabbits. Int J Immunopharmacol. 9(1): 23-30.