

Mouse IFNA2 / Interferon alpha 2 Protein (Fc Tag)

Catalog Number: 50525-M01H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

P23-139P14.4, Ifa2

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.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 88 % as determined by SDS-PAGE

Bio-Activity

1. Measured in antiviral assays using L929 cells infected with vesicular stomatitisvirus (VSV). The ED50 for this effect is 0.1-0.8 ng/mL.
2. Measured by its binding ability in a functional ELISA. Immobilized mouse IFNAR1-His (Cat:50469-M08H) at 10 µg/ml (100 µl/well) can bind mouse Fc-IFNA2 (cat:50525-M01H). The EC50 of mouse Fc-IFNA2 (cat:50525-M01H) is 0.8-1.9 µg/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu

Molecular Mass:

The recombinant mouse IFNA2/Fc is a disulfide-linked homodimer. The reduced monomer comprises 427 amino acids and has a calculated molecular mass of 47.8 kDa. The apparent molecular mass of the monomer is approximately 52 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

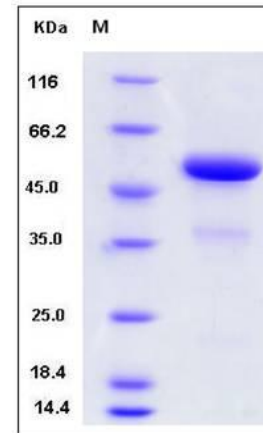
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

Interferon alpha 2 (IFN-alpha 2) is a member of the IFN alpha protein family. The IFN alpha proteins are produced by leukocytes. They are mainly involved in innate immune response against viral infection. IFN alpha acts as a pyrogenic factor by altering the activity of thermosensitive neurons in the hypothalamus thus causing fever. It does this by binding to opioid receptors and eliciting the release of prostaglandin-E2 (PGE2). A similar mechanism is used by IFN alpha to reduce pain; IFN alpha interacts with the µ-opioid receptor to act as an analgesic. Interferon alpha 2 (IFN-alpha 2) was isolated from a preparation of partially purified human leucocyte IFN by monoclonal-antibody immunoaffinity chromatography. Interferon alpha-2 (IFN alpha 2) is a leukocyte product with several biological properties including antiviral activity, pyrogenicity and enhancement of immune functions. It has been reported that an additional facet of Interferon alpha-2 activity is its ability to enhance slow-wave sleep (SWS) without greatly altering other aspects of sleep. The sleep-promoting activity of Interferon alpha-2 may be related to feelings of lassitude and sleepiness that often accompany viral disease and interferon therapy. Recombinant alpha-2 interferon has been used in the treatment of Kaposi's sarcoma, and its toxicity and efficacy is associated with the acquired immunodeficiency syndrome.

References

1. Wang. et al., 2004, J Neuroimmunol. 156 (1-2): 107-12.
2. Groopman JE. et al., 1984, Ann Intern Med. 100 (5): 671-6.
3. Krueger JM. et al., 1987, Int J Immunopharmacol. 9 (1): 23-30.

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