Rat IFNA4 / IFNα4 / Interferon alpha-4 Protein (Fc Tag)

Catalog Number: 80173-R01H

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Biological Solution Specialist

General Information

Gene Name Synonym:

IFNA4

Protein Construction:

A DNA sequence encoding the rat IFNA4 (D3ZFH0) (Cys24-Lys189) was expressed, fused with Fc region of human IgG1 at the N-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio-Activity

Measured in antiviral assays using L929 cells infected with vesicular stomatitisvirus (VSV).
The ED50 for this effect is typically 0.5-4 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 ℃

Predicted N terminal: Glu

Molecular Mass:

The recombinant rat IFNA4 comprises 426 amino acids and predicts a molecular mass of 47.5 kDa. The apparent molecular mass of the recombinant protein is approximately 48 kDa in SDS-PAGE under reducing conditions due to glycosylation.

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.

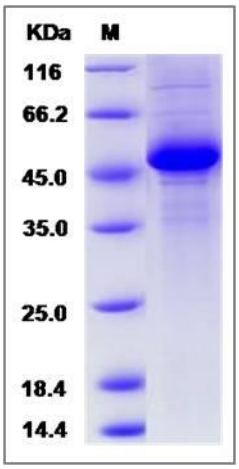
Usage Guide

Storage:

Store it under sterile conditions at -20℃ to -80℃ 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-4, also known as IFN-alpha-4, Interferon alpha-4B, Interferon alpha-76, Interferon alpha-M1 and IFNA4, is a secreted protein which belongs to thealpha / beta interferon family. Interferon alpha-4 / IFNA4 is produced by macrophages, IFN-alpha have antiviral activities. Interferon stimulates the production of two enzymes: a protein kinase and an oligoadenylate synthetase. Interferons (IFNs) are proteins made and released by host cells in response to the presence of pathogens such as viruses, bacteria, or parasites or tumor cells. They allow communication between cells to trigger the protective defenses of the immune system that eradicate pathogens or tumors. IFNs belong to the large class of glycoproteins known as cytokines. 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 virus. Certain host symptoms, such as aching muscles and fever, are related to the production of IFNs during infection.

References

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3. Takaoka A. et al., 2003, Nature. 424: 516-23.
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5. Pirhonen J. et al., 2007, J Leukoc Biol. 82: 1185-92.
6. Badr G. et al., 2005, Int Immunol. 17: 459-67.
7. Hussain M. et al., 1997, J Interferon Cytokine Res. 17: 559-66.