

Mouse IFNB1 / IFN-beta / Interferon beta Protein (Fc Tag)

Catalog Number: 50708-M02H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

RP23-19G2.2, IFN-beta, IFNB, Ifb

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse IFNB1 (P01575) (Met 1-Asn 182) was fused with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 92 % 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 10-50 pg/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: Ile 22

Molecular Mass:

The secreted recombinant mouse IFNB1/Fc is a disulfide-linked homodimer. The reduced monomer comprises 402 amino acids and has a calculated molecular mass of 46.7 kDa. As a result of glycosylation, the apparent molecular mass of rmIFNB1/Fc monomer is approximately 58 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.

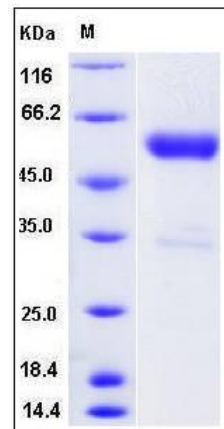
Usage Guide

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 beta 1 (IFN beta1) or IFNB1 is one type of IFN beta proteins that is a member of the Interferon type I family. Interferon beta 1 (IFN beta1) or IFNB1 is produced in large quantities by fibroblasts and binds to a specific cell surface receptor complex known as the IFN alpha receptor (IFNAR) that consists of IFNAR1 and IFNAR2 chains as other members of IFN1 family do. The induction of interferon beta (IFNB1) is a key event in the antiviral immune response. It has shown that treatment with IFN beta affects NK cell cycle without altering NK cell apoptosis in MS patients. Treated with IFN beta alone or in combination with low-dose prednisolone displayed increased proportion of all NK cell subsets in the active phase of the cell cycle. There was no difference in NK cell apoptosis markers. Synthetic interferons (IFNs) are used in the treatment of several types of cancer. It has also been proved that apoptosis was decreased by IFN treatment, whereas inhibition of proliferation is caused by cell cycle arrest in late S-phase.

References

1. Sanvito L, et al. (2011) J Neuroimmunol. 236 (1-2): 111-7.
2. Erdmann J, et al. (2011) J Interferon Cytokine Res. 31 (5): 451-8.
3. Biron CA, et al. (2002) Curr Top Microbiol Immunol. 263: 7-27.

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