

Human IFNL3 / IL28B / Interleukin-28B Protein (His Tag)

Catalog Number: 11890-H08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

IFNL3, IL-28B, IL28C

Protein Construction:

A DNA sequence encoding the human IL28B (NP_742151.2) (Met 1-Val 196) was expressed, with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 96 % as determined by SDS-PAGE

Bio-Activity

1. Measured in antiviral assays using WISH human amnion cells infected with vesicular stomatitis virus (VSV) . The EC₅₀ for this effect is typically 2-6 ng/mL .
2. Measured by its binding ability in a functional ELISA . Immobilized human IL28B at 20 µg/ml (100 µl/well) can bind human IL10RB with a linear ranger of 3.125-25 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: Val 22

Molecular Mass:

The recombinant human IL28B consists of 186 amino acids and predicts a molecular mass of 21 kDa. In SDS-PAGE under reducing conditions, rhIL28B migrates as an approximately 23 kDa band.

Formulation:

Lyophilized from sterile PBS, 500mM NaCl, 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.

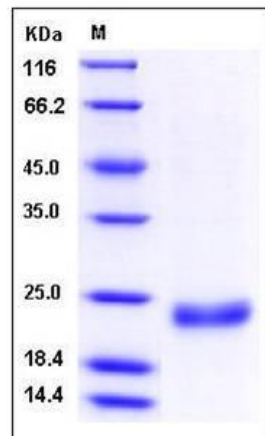
Usage Guide

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

Interleukin-28B, also known as IL-28B, Cytokine Zcyto22, Interferon lambda-3, Interferon lambda-4, Interleukin-28C, IL28B and IFNL3, is a secreted protein which belongs to the IL-28/IL-29 family. Interleukin-28B / IL28B is a cytokine with immunomodulatory activity. It up-regulates MHC class I antigen expression. Interleukin-28B / IL28B displays potent antiviral activity. It also displays antitumor activity. Ligand for the heterodimeric class II cytokine receptor composed of IL10RB and IL28RA. The ligand/receptor complex seems to signal through the Jak-STAT pathway. IL28B contributes to viral resistance and is known to be upregulated by interferons and by RNA virus infection. Hepatitis C Virus (HCV) infection is spontaneously resolved in about 30% of acutely infected individuals. In those who progress to chronic hepatitis C, HCV therapy permanently eradicates infection in about 40% of cases. It has long been suspected that host genetic factors are key determinants for the control of HCV infection. Genetic variation in Interleukin-28B / IL28B is the strongest predictor for the control of HCV infection. Importantly, single nucleotide polymorphisms (SNPs) in IL28B strongly predicted both spontaneous and treatment-induced HCV recovery.

References

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2. Li M.C. et al., 2006, Acta Pharmacol. Sin. 27: 453-9.
3. Gad H.H. et al., 2009, J. Biol. Chem. 284: 20869-75.
4. Suppiah, V. et al., 2009, Nat Genet 41 (10): 1100-4.
5. Montes-Cano, M.A. et al., 2010, Hepatology. 52 (1): 33-7.

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