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

Catalog Number: 11890-H08H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL-28B; IL28B; 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: HEK293 Cells

QC Testing

Purity: > 96 % as determined by SDS-PAGE

Bio Activity:

Measured in antiviral assays using WISH cells infected with vesicular stomatitis virus. The ED_{50} for this effect is typically 4-16 ng/mL.

Endotoxin:

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

Predicted N terminal: Val 22

Molecular Mass:

The recombinant human IL28B consists of 186 amino acids and predictes 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, mannitol and 0.01% Tween80 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

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

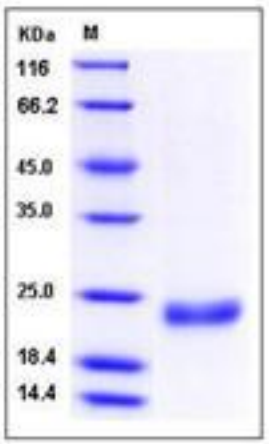
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin-28B (IL-28B) also known as Interferon lambda-3 and IFN-lambda-3, belongs to the type III interferon family of cytokines and are highly similar to IL-29. IL-28B belongs to the newly described interferon lambda (IFNλ) family of cytokines. IL-28B is a cytokine with immunomodulatory activity. It functions in Up-regulating MHC class I antigen expression. IL-28B displays potent antiviral activity and antitumor activity. This cytokine serves as ligand for the heterodimeric class II cytokine receptor composed of IL1RB and IL28RA. The ligand/receptor complex seems to signal through the Jak-STAT pathway. IL-28B, like IL-12, is capable of robustly enhancing adaptive immunity. Moreover, we describe for the first time how IL-28B reduces regulatory T-cell populations during DNA vaccination, whereas IL-12 increases this cellular subset. We also show that IL-28B, unlike IL-12, is able to increase the percentage of splenic CD8+ T cells in vaccinated animals, and that these cells are more granular and have higher antigen-specific cytolytic degranulation compared with cells taken from animals that received IL-12 as an adjuvant.

References

1.Ge D, et al.. (2009) Genetic variation in IL28B predicts hepatitis C treatment-induced viral clearance. Nature. 461(7262): 399-401.
2.Morrow MP, et al.. (2009) Comparative ability of IL-12 and IL-28B to regulate Treg populations and enhance adaptive cellular immunity. Blood. 113(23): 5868-77.
3.Sheppard P, et al.. (2003) IL-28, IL-29 and their class II cytokine receptor IL-28R. Nat Immunol. 4(1): 63-8.