

IL-28B Protein, Mouse, Recombinant (His)

General Information

Synonyms:	INF-λ;IFL-1;interferon, lambda 3;interferon, λ3;INF-lambda;IL28;INF-alpha;INF-α;IL28b;IL-28B
Protein Construction:	A DNA sequence encoding the mouse Ifnl3 (NP_796370.1) (Met1-Val193) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Asp 20
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q8CGK6
Molecular Weight:	21.1 kDa (predicted)

QC Testing

Biological Activity:	Measured in antiviral assay using HepG2 cells infected with vesicular stomatitis virus. The ED50 for this effect is typically 44.6-178.4 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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 a 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. 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, can 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.

Reference

Ge D, et al.. (2009) Genetic variation in IL28B predicts hepatitis C treatment-induced viral clearance. *Nature*. 461 (7262): 399-401.

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.

Sheppard P, et al.. (2003) IL-28, IL-29 and their class II cytokine receptor IL-28R. *Nat Immunol*. 4(1): 63-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481