

# Recombinant Protein Technical Manual

# Recombinant Human IFN-λ3/IL-28B Protein (Yeast, His Tag)(Active) RPES4877

#### Product Data:

**Product SKU:** RPES4877 **Size:** 20μg

Species: Human Expression host: Yeast

**Uniprot:** NP 742151.2

#### **Protein Information:**

Molecular Mass: 21.3 kDa

**AP Molecular Mass:** 

Tag: C-His

Bio-activity: Measured in antiviral assays using WISH cells infected with vesicular stomatitis

virus. The ED50 for this effect is 8-40ng/mL.

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.

Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of

reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, PH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** 

**Synonyms:** Interleukin-28B; IL-28B; Cytokine Zcyto22; Interferon Lambda-3; IFN-Lambda-3;

Interferon Lambda-4; IFN-Lambda-4; Interleukin-28C; IL-28C; IL28B; IFNL3; IFNL4;

IL28C; ZCYTO22

## Immunogen Information:

**Sequence:** Val18-Val196

## 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 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 IL2, 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 IL2 increases this cellular subset. We also show that IL-28B, unlike IL2, 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 IL2 as an adjuvant.