

Animal-Free IFN-lambda 3/IL-28B Protein, Human (His)

Cat. No.:	HY-P700120AF
Synonyms:	Interferon lambda-3; IFN-lambda-3; IL-28B; IL-28C; ZCYTO22
Species:	Human
Source:	E. coli
Accession:	Q8IZI9 (V22-V196)
Gene ID:	282617
Molecular Weight:	Approximately 25.57 kDa

PROPERTIES

AA Sequence	M V P V A R L R G A L P D A R G C H I A Q F K S L S P Q E L Q A F K R A K D A L E E S L L L K D C K C R S R L F P R T W D L R Q L Q V R E R P V A L E A E L A L T L K V L E A T A D T D P A L G D V L D Q P L H T L H H I L S Q L R A C I Q P Q P T A G P R T R G R L H H W L H R L Q E A P K K E S P G C L E A S V T F N L F R L L T R D L N C V A S G D L C V
Biological Activity	Measure by its ability to protect HepG2 cells infected with encephalomyocarditis (EMC) virus. The ED ₅₀ for this effect is <5 ng/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a solution containing 1X PBS, pH 8.0.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	IFN-lambda 3/IL-28B Protein, a multifaceted cytokine, exhibits antiviral, antitumor, and immunomodulatory activities, playing a pivotal role in antiviral host defense, particularly within epithelial tissues. Serving as a ligand for the heterodimeric class II cytokine receptor consisting of IL10RB and IFNLR1, its engagement initiates the JAK/STAT signaling pathway, leading to the expression of IFN-stimulated genes (ISG) that establish the antiviral state. Notably, its receptor distribution is constrained, primarily exerting effects in epithelial cells due to the cell type-specific expression of the receptor IFNLR1.
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While not considered essential for early virus-activated host defense in vaginal infection, it proves crucial in Toll-like receptor (TLR)-induced antiviral defense and significantly contributes to the antiviral immune defense in the intestinal epithelium. Additionally, IFN-lambda 3/IL-28B exerts an immunomodulatory effect by up-regulating MHC class I antigen expression, enhancing its impact on immune responses.

Caution: Product has not been fully validated for medical applications. For research use only.

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