

IFN-lambda 3/IL-28B Protein, Human (P.pastoris, His)

Cat. No.:	HY-P73201
Synonyms:	Interferon lambda-3; IFN-lambda-3; IL-28B; IL-28C; ZCYTO22
Species:	Human
Source:	P. pastoris
Accession:	Q8IZI9 (V18-V196)
Gene ID:	282617
Molecular Weight:	Approximately 21.3 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, PH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by 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	<p>IFN-lambda 3 (IL-28B) is a member of the Type-III interferon family. Human IFN-lambda 2 shares 61.98% common aa identity with mouse. IFN-lambda 2 is produced particularly by dendritic cells (DCs), when following viral or bacterial infection^[3]. IFN-lambda 3 mediates effects by a heterodimeric receptor complex comprising IFNλ receptor 1 (IFNLR1) and IL-10 receptor subunit-β (IL-10RB). When binding to the receptor complex, Jak1 and Tyk2 will be activated, and leads to subsequent tyrosine phosphorylation of the IFN-λR1 (intracellular domain, Tyr406 and Tyr343, Tyr517), and activation of STAT1 and STAT2. Activated STAT1 and STAT2 together with IRF-9 (p48) form a trimeric transcription factor complex (ISGF3). The formed ISGF3 complexes then translocate to the nucleus and promotes the production of IFN-stimulated genes (ISGs) such as IRF7, MX1, and OAS1^[2].</p> <p>IFN-lambda 3 has antiviral antitumour and immunomodulatory activities^[1]. Genetic variants in the IFN-lambda 3 g is associated with pulmonary fibrosis in patients with systemic sclerosis^[4].</p>
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REFERENCES

[1]. Lopusná K, et al. Interferons lambda, new cytokines with antiviral activity. *Acta Virol.* 2013;57(2):171-9.

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- [2]. Donnelly RP, et al. Interferon-lambda: a new addition to an old family. *J Interferon Cytokine Res.* 2010 Aug;30(8):555-64.
- [3]. Witte K, et al. IL-28A, IL-28B, and IL-29: promising cytokines with type I interferon-like properties. *Cytokine Growth Factor Rev.* 2010 Aug;21(4):237-51.
- [4]. Metwally M, et al. IFNL3 genotype is associated with pulmonary fibrosis in patients with systemic sclerosis. *Sci Rep.* 2019 Oct 16;9(1):14834.
- [5]. Egli A, et al. IL-28B is a key regulator of B- and T-cell vaccine responses against influenza. *PLoS Pathog.* 2014 Dec 11;10(12):e1004556.
- [6]. Cheng M, et al. Recombinant human interleukin 28B: anti-HCV potency, receptor usage and restricted cell-type responsiveness. *J Antimicrob Chemother.* 2012 May;67(5):1080-7.
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Caution: Product has not been fully validated for medical applications. For research use only.

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