

IFN-lambda 1/IL-29 Protein, Human (HEK293)

| | |
|--------------------------|---|
| Cat. No.: | HY-P73202 |
| Synonyms: | IFN- λ 1/IL-29; IL-29; IFN-lambda-1; Cytokine Zcyto21; Interleukin-29 |
| Species: | Human |
| Source: | HEK293 |
| Accession: | Q8IU54 (M1-T200) |
| Gene ID: | 282618 |
| Molecular Weight: | Approximately 20.2 kDa |

PROPERTIES

| | |
|--------------------------------|---|
| AA Sequence | <p> M A A A W T V V L V T L V L G L A V A G P V P T S K P T T T G K G C H I G R F K S L S P Q E L A S F K K A R D A L E E S L K L K N W S C S S P V F P G N W D L R L L Q V R E R P V A L E A E L A L T L K V L E A A A G P A L E D V L D Q P L H T L H H I L S Q L Q A C I Q P Q P T A G P R P R G R L H H W L H R L Q E A P K K E S A G C L E A S V T F N L F R L L T R D L K Y V A D G N L C L R T S T H P E S T </p> |
| Biological Activity | Measured in antiviral assays using HepG2 cells infected with vesicular stomatitis virus and the ED ₅₀ is typically 3-39 ng/mL. |
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 μ m 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/ μ g, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 μ g/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 1 (IL-29) is a member of the Type-III interferon family. IFN-lambda 1 is produced mainly by maturing dendritic cells and macrophages. Maturing dendritic cells, macrophages, mast cells, and alveolar cells express high levels of IFN-lambda 1^[3].</p> <p>IFN-lambda 1 signals through 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</p> |
|-------------------|--|

tyrosine phosphorylation of the IFN- λ R1 (intracellular domain, Tyr406 and Tyr343, Tyr517), and activation of STAT1 and STAT2^[1]. Activated STAT1 and STAT2 recruits IRF-9 to form a trimeric transcription factor complex (ISGF3), which mediates the antiviral state^[4].

IFN-lambda 1 modulates immunity in infections and autoimmune diseases^[2].

REFERENCES

- [1]. Donnelly RP, et al. Interferon-lambda: a new addition to an old family. *J Interferon Cytokine Res.* 2010 Aug;30(8):555-64.
- [2]. Wu Q, et al. Serum IFN- λ 1 is abnormally elevated in rheumatoid arthritis patients. *Autoimmunity.* 2013 Feb;46(1):40-3.
- [3]. Kelm NE, et al. The role of IL-29 in immunity and cancer. *Crit Rev Oncol Hematol.* 2016 Oct;106:91-8.
- [4]. Lopusná K, et al. Interferons lambda, new cytokines with antiviral activity. *Acta Virol.* 2013;57(2):171-9.
- [5]. Xu L, et al. Interleukin-29 Enhances Synovial Inflammation and Cartilage Degradation in Osteoarthritis. *Mediators Inflamm.* 2016;2016:9631510.
- [6]. Yu Y, et al. Hepatitis B virus induces a novel inflammation network involving three inflammatory factors, IL-29, IL-8, and cyclooxygenase-2. *J Immunol.* 2011 Nov 1;187(9):4844-60.
-

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA