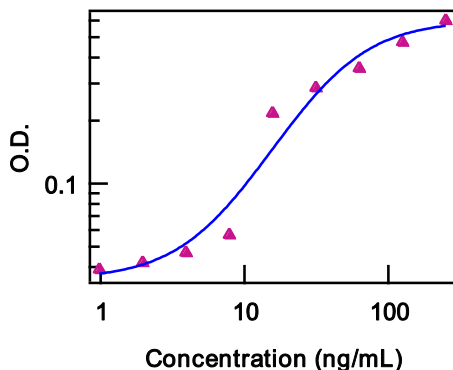


Human IL-28A (IFN lambda 2) Recombinant Protein Carrier-Free

Catalog Number: 34-8289

Also known as: Interleukin-28A

RUO: For Research Use Only



Inhibition of the cytopathic effect of EMC virus in HepG2 cells by Human IL-28A Recombinant Protein

Product Information

Contents: Human IL-28A (IFN lambda 2) Recombinant Protein Carrier-Free

 **Catalog Number:** 34-8289

Concentration: 0.5 mg/mL

Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment.

Source: Insect expressed amino acids Val26-Val200 accession number NM_172138

Molecular Mass: 20.9 kDa

Purity: Greater than 97% as determined by SDS-PAGE.

Endotoxin: Less than 0.01 ng/μg cytokine as determined by the LAL assay.

Bioactivity: The ED50 of this protein, as measured by inhibition of the cytopathic effect of EMC virus on HepG2 cells, is less than or equal to 10 ng/mL. This corresponds to a specific activity of greater than or equal to 1 x 10⁵ Units/mg.

Formulation: Sterile liquid, 0.1 M glycine, pH 3.0



Temperature Limitation: Store at less than or equal to -70°C.



Batch Code: Refer to vial



Use By: Refer to vial

Description

IL-28A belongs to the IFN-λ family, a novel family of cytokines within the IL-10 superfamily. The three members of this family are IL-29 (IFN-λ1), IL-28A (IFN-λ2), and IL-28B (IFN-λ3), and are also known as the type III Interferons.

The IFN-λs signal through a heterodimeric receptor of which one subunit, IL-10R2, is shared with other members of the superfamily. The second subunit, IFN-λR1 or IL-28Rα, is unique to the IFN-λs. Signaling occurs through the Jak/STAT pathway in a similar manner as the type I IFNs (IFN-α/β) and activates many of the same genes despite low sequence homology between the cytokines and receptors in the two families. Both IFN families display antiviral activity through the induction of antiviral protein production in target cells and the upregulation of MHC

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class I expression. These proteins also exhibit antiproliferative and antitumor effects, making them a possible alternative to IFN- α cancer therapies. Unlike the type I IFNs, which are able to stimulate most cells, response to IFN- λ stimulation appears to be limited to dendritic and some tumor cells due to the limited expression of IFN- λ R1. Another notable difference is the ability of the IFN- λ stimulation to drive dendritic cells towards the production of CD4+CD25+FoxP3+ regulatory T-cells, suggesting a possible immunoregulatory role.

Applications Reported

Human IL-28A Recombinant Protein Carrier-Free is biologically active.

Applications Tested

The ED50 of this protein, as measured by inhibition of the cytopathic effect of EMC virus on HepG2 cells, is less than or equal to 10 ng/mL. This corresponds to a specific activity of greater than or equal to 1×10^5 Units/mg.

References

Witte K, Witte E, Sabat R, Wolk K. 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.

Wolk K, Witte K, Witte E, Proesch S, Schulze-Tanzil G, Nasilowska K, Thilo J, Asadullah K, Sterry W, Volk HD, Sabat R. Maturing dendritic cells are an important source of IL-29 and IL-20 that may cooperatively increase the innate immunity of keratinocytes. *J Leukoc Biol.* 2008 May;83(5):1181-93.

Uze G and Monneron D. IL-28 and IL-29: newcomers to the interferon family. *Biochimie.* 2007 Jun-Jul;89(6-7):729-34.

Mennechet FJ and Uze G. Interferon-lambda-treated dendritic cells specifically induce proliferation of FOXP3-expressing suppressor T cells. *Blood.* 2006 Jun 1;107(11):4417-23.

Siren J, Pirhonen J, Julkunen I, Matikainen S. IFN-alpha regulates TLR-dependent gene expression of IFN-alpha, IFN-beta, IL-28, and IL-29. *J Immunol.* 2005 Feb 15;174(4):1932-7.

Related Products

34-8288 Human IL-28B (IFN lambda 3) Recombinant Protein Carrier-Free

34-8299 Human IL-29 (IFN lambda 1) Recombinant Protein Carrier-Free

88-7296 Human IL-29 (IFN lambda 1) ELISA Ready-SET-Go!®