

RayBiotech, Inc.

3607 Parkway Lane suite 100
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Recombinant Human Interleukin-28A (IL-28A) / Interferon-lambda 2 (IFN-lambda 2)

Catalog No.
228-10913

Source:
E. Coli

Synonyms

Interleukin-28A, IL-28A, IFN-Lambda 2, Interferon-Lambda 2, Cytokine ZCYTO20, IL28A, IFNL2, ZCYTO20.

Introduction

IL-28A is distantly related to type I interferons and the IL-10 family. Expression of IL-28A is induced by viral infection which interacts with a heterodimeric class II cytokine receptor that consists of interleukin 10 receptor beta (IL10RB) and interleukin 28 receptor alpha. IL-28A exhibits common features with type I IFNs such as antiviral activity, anti-proliferative activity and in vivo anti-tumour activity.

IL-28A acts similarly to IFNs, but is less effective generally and has activity in a more limited range of cell lines. IFN-ambda 1, IFN-lambda 2 and IFN-lambda 3 are closely positioned genes on human chromosome 19.

IL-28A induces ELR(-) CXC chemokine mRNA in human peripheral blood mononuclear cells, in an IFN-gamma-independent manner.

IL-28A is able to generate tolerogenic DCs, an activity that could thwart IFN-beta functions. IL-28A produced in response to viral infection, activates both monocytes and macrophages producing a restricted panel of cytokines and therefore is an important factor in activating innate immune responses at the site of viral infection.

Description

IL-28A human recombinant was produced in E.Coli. It is a single, non-glycosylated, polypeptide chain containing 175 amino acids and having a molecular mass of 19.6 kDa.

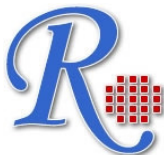
Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered solution containing no additives.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Solubility

It is recommended to reconstitute the lyophilized IL-28A in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Amino Acid Sequence

VPVAR LHGALPDARG CHIAQFKSLS PQELQAFKRA KDALEESLLL KDCRCHSRLF
PRTWDLRQLQ VRERPMALEA ELALTLKVLE ATADTPALV DVLDQPLHTL HHILSQFRAC
IQPQPTAGPR TRGRLHHWLY RLQEAPKKES PGCLEASVTF NLFRLLTRDL NCVASGDLCV.

Stability

Lyophilized IFN-Lambda 2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IFN-Lambda 2 Recombinant should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 85% as determined by

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

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