

Recombinant Human Interleukin-28A (rh IL-28A)

Synonyms: IFN-Lambda 2, Interferon-Lambda 2 (IFNL2), Cytokine 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 IL-10 Receptor beta (IL10RB) and IL-28 Receptor alpha (IL-28RA). IL-28A exhibits common features with type I IFNs such as antiviral activity, antiproliferative activity and in vivo antitumour 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: Recombinant human IL-28A produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 175 amino acids and having a molecular mass of 19.6 kDa.

Source: *Escherichia Coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2µm filtered solution containing no additives
The samples of 1µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rh IL-28A in sterile water not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh IL-28A although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rh IL-28A should be stored at 4°C between 2-7days, 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 85.0% as determined by RP-HPLC and by SDS-PAGE.

Amino Acid Sequence: VPVAR LHGALPDARG CHIAQFKSLS PQELQAFKRAKDALEESLLL KDCRCHSRLF
PRTWDLRQLQ VRERPMALAE ELALTLKVLE ATADTPALV DVLDQPLHTL HHILSQFRAC IQPQPTAGPR
TRGRLLHWWLY RLQEAPKKEG PGCLEASVTFNLFRLTRDL NCVASGDLCV.

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| <i>small</i> | 5 µg | Cat.N° | 11340280 |
| <i>medium</i> | 20 µg | Cat.N° | 11340284 |

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