

GRF-12032 Human Recombinant Interleukin-29 (Interferon λ1)

Size: 20 ug

Synonyms: Interleukin-29, IL-29, IFN-Lambda 1, IFN-Lambda 1, Cytokine ZCYTO21, IL29, IFNL1, ZCYTO21.

Introduction: IL-29 is distantly related to type I IFNs and the IL-10 family. Expression of IL-29 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-29 exhibits common features with type I IFNs such as antiviral activity, antiproliferative activity and in vivo antitumour activity. IL-29 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-lambda3 are closely positioned genes on human chromosome 19. IL-29 induces ELR(-) CXC chemokine mRNA in human peripheral blood mononuclear cells, in an IFN-gamma-independent manner. IL-29 is able to generate tolerogenic DCs, an activity that could thwart IFN-beta functions. IL-29 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. IFN-Lambda 1 antiviral and antiproliferative activity requires IFN-Lambda 2 receptor tyrosine residues.

Description: IL-29 human recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 181 amino acids and having a molecular mass of 20 kDa.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 µm filtered solution containing no additives.

Solubility: It is recommended to reconstitute the lyophilized IL-29 in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Amino acid sequence: GPVPTSKPTTT GKGCHIGRFK SLSPQELASF KKARDALEES LKLKNWSCSS
PVFPGNWDLR LLQVRERPVA LEAELALTLK VLEAAAGPAL
EDVLDQPLHLHHILSQLQA CIQPQPTAGP RPRGRLHHWL HRLQEAPKKE
SAGCLEASVT FNLFRLLTRD LKYVADGNLC LRTSTHPEST.

Purity: Greater than 90% as determined by(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Stability: Lyophilized IFN-Lambda 1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IFN-Lambda 1 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). Prevent freeze-thaw cycles.

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