

## Recombinant Human IL29 protein

Cat. No. IL29-100H Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human IL29 protein was expressed in Escherichia coli.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>ProteinLength</b>	181
<b>Description</b>	<p>IL-28A, IL-28B, and IL-29, also named interferon-<math>\lambda</math>2 (IFN-<math>\lambda</math>2), IFN-<math>\lambda</math>3, and IFN-<math>\lambda</math>1, respectively, are newly identified class II cytokine receptor ligands that are distantly related to members of the IL-10 family (11-13 % a.a. sequence identity) and the type I IFN family (15-19 % a.a. sequence identity). The expression of IL-28A, B, and IL-29 is induced by virus infection or double-stranded RNA. All three cytokines exert bioactivities that overlap those of type I IFNs, including antiviral activity and up-regulation of MHC class I antigen expression. The three proteins signal through the same heterodimeric receptor complex that is composed of the IL-10 receptor <math>\beta</math> (IL-10 R<math>\beta</math>) and a novel IL-28 receptor <math>\alpha</math> (IL-28 R<math>\alpha</math>, also known as IFN-<math>\lambda</math>R1). Ligand binding to the receptor complex induces Jak kinase activation and STAT1 and STAT2 tyrosine phosphorylation.</p>
<b>Form</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in PBS, pH 7.4.
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 as determined by an anti-viral assay using human HepG2 cells infected with encephalomyocarditis is less

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than 5 ng/ml, corresponding to a specific activity of  $> 2.0 \times 10^5$  IU/mg.

**Molecular Mass**

Approximately 19.8 kDa, a single non-glycosylated polypeptide chain containing 181 amino acids.

**AA Sequence**

GPVPTSKPTTTGKGCHIGRFKSLSPQELASFKKARDALEESLKLKNWSCSSPVFPG  
 NWDLRLQLQVRERPVALEAELALTLKVLEAAAGPALEDVLDQPLHTLHHILSQLQACIQ  
 PQPTAGPRPRGRLHHWLHRLQEAPKKESAGCLEASVTFNLFRLLTRDLKYVADGNL  
 CLRTSTHPEST

**Endotoxin**

Less than 1 EU/ $\mu$ g of rHuIFN- $\lambda$ 1/IL-29 as determined by LAL method.

**Purity**

>97% by SDS-PAGE and HPLC analysis.

**Storage**

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at  $\leq -20$  centigrade. Further dilutions should be made in appropriate buffered solutions.

## GENE INFORMATION

**Gene Name**

IL29

**Official Symbol**

IL29

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<b>Synonyms</b>	IL29; interleukin 29 (interferon, lambda 1); interleukin 29; interleukin-29; IFNL1; IL 29; IFN-lambda-1; cytokine Zcyto21; interferon lambda-1; interferon-lambda-1; interferon, lambda 1; IL-29;
<b>Gene ID</b>	<a href="#">282618</a>
<b>mRNA Refseq</b>	<a href="#">NM_172140</a>
<b>Protein Refseq</b>	<a href="#">NP_742152</a>
<b>MIM</b>	<a href="#">607403</a>
<b>UniProt ID</b>	<a href="#">Q8IU54</a>

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