83103 Avenue 48, Ste.1B #204 Coachella, CA 92236 USA Phone : +1.6268339877 Email : info@cali-bio.com

# **Product Datasheet**

Product Name Interleukin-29 Human Recombinant

Cata No CB501337

Source Escherichia Coli.

Synonyms Interleukin-29, IL-29, IFN-Lambda 1, Interferon-Lambda 1, Cytokine ZCYTO21, IL29,

IFNL1, ZCYTO21.

## **Description**

IL-29 is distantly related to type I interferons 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 Interferon-Lambda 2 receptor tyrosine residues.

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

# **Physical Appearance**

Sterile Filtered White lyophilized (freeze-dried) powder.

## **Purity**

Greater than 90% as determined by:

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

#### **Formulation**

Lyophilized from a 0.2 µm filtered solution containing no additives.

#### Reconstitution

It is recommended to reconstitute the lyophilized IL-29 in sterile 18M $\Omega$ -cm H2O not less than 100 $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

# **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).

Please prevent freeze-thaw cycles.

### Sequence

GPVPTSKPTTT GKGCHIGRFK SLSPQELASF KKARDALEES LKLKNWSCSS PVFPGNWDLR

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LLQVRERPVA LEAELALTLK VLEAAAGPAL EDVLDQPLHTLHHILSQLQA CIQPQPTAGP RPRGRLHHWL HRLQEAPKKE SAGCLEASVT FNLFRLLTRD LKYVADGNLC LRTSTHPEST **Product Datasheet**