# **PRODUCT INFORMATION**

**Expression system** Baculovirus

**Domain** 30-162aa

**UniProt No.** Q9HBE4

NCBI Accession No. NP\_068575

Alternative Names Interleukin-21 isoform 1, IL21, CVID11, IL-21, Za11

# **PRODUCT SPECIFICATION**

Molecular Weight 16.9 kDa (145aa)

**Concentration** 0.25mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol

### Purity

> 85% by SDS-PAGE

**Endotoxin level** < 1 EU per 1ug of protein (determined by LAL method)

### **Biological Activity**

The activity is determined by the IFN-g ELISA in a using NK-92 cell. The ED50 range  $\leq$  10ng/ml.

## The activity IS

Tag His-Tag

Application SDS-PAGE, Bioactivity

## **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

# **BACKGROUND**

## Description

IL21, also known as interleukin-21 isoform 1, is a T-helper cytokine that regulates humoral immunity and cell-



mediated anti-tumour responses. It has broad immunoregulatory activity and can modulate both humoral and cell-mediated responses. It is important in the regulation of haematopoiesis and immune responses, and can influence lymphocyte development. It is produced by activated T cells, and it influences proliferation of T and B cells and cytolytic activity of natural killer cells. It may be a critical factor in the control of persistent viral infections. It has a potential predicating significance for survival time in patients in the development of sporadic CRC. It binds to the IL-21R and can activate Janus kinase JAK1, JAK3, STAT1, and STAT3 in EDgamma-16 cells. Recombinant human IL21, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

### **Amino acid Sequence**

<ADPEFM>QGQD RHMIRMRQLI DIVDQLKNYV NDLVPEFLPA PEDVETNCEW SAFSCFQKAQ LKSANTGNNE RIINVSIKKL KRKPPSTNAG RRQKHRLTCP SCDSYEKKPP KEFLERFKSL LQKMIHQHLS SRTHGSEDS<H HHHHH>

#### **General References**

Parrish-Novak J., et al. (2000) Nature. 408:57-63. Cui G., et al. (2017) Clin Immunol. 183:266-272.

### DATA

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

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