

Recombinant canine IL-21 protein

Catalog Number: ATGP3974

PRODUCT INFORMATION

Expression system

E.coli

Domain

18-146aa

UniProt No.

Q6L7I9

NCBI Accession No.

NP_001003347.1

Alternative Names

Interleukin-21

PRODUCT SPECIFICATION

Molecular Weight

15 kDa (130aa), confirmed by MALDI-TOF

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4)

Purity

> 95% 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 human natural killer cells. The ED50 range \leq 2 ng/ml.

Tag

Non-Tagged

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

Recombinant canine IL-21 protein

Catalog Number: ATGP3974

Description

IL-21, also known as Interleukin-21, is an important modulator of natural killer (NK) cell function. However, little is known about IL-21 function in canine NK cells because the phenotype of these cells remains undefined. NK cells proliferated rapidly in response to activation by IL-21 for 3 weeks, and IL-21 was able to induce changes in the mRNA expression of NK cell-related receptors and enhance the effector function of NK cells in perforin- and granzyme-B-dependent manners. The duration, frequency and timing of IL-21 stimulation during culture affected the rate of proliferation, patterns of receptor expression, cytokine production, and anti-tumor activity. It has a potential predicating that synergistic interactions of IL-21 with IL-2 and IL-15 play an important role in the proliferation, receptor expression, and effector function of canine NK cells. Recombinant canine IL-21, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

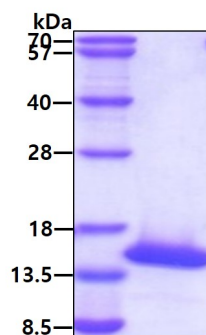
MHKSSFQEQD LLLIRMRQLI DIVDQLKNYV NDLDPESLPA PEDVKRHCER SAFSCFQKVQ LKAANTGGNE QIINVLTQQL KRKLPPTNAG RRQKHRPACP SCDSYEKAPP KEFLERLKSL IQKMIHQHLS

General References

- DJ Shin., et al. (2015) Vet Immunol Immunopathol. 15;165(1-2):22-33.
- Gui G., et al. (2017) Clin Immunol. 183:266-272.
- Parrish-Novak J., et al. (2000) Nature. 408(6808):57-63.

DATA

SDS-PAGE



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

Biological Activity

Canine IL-21 stimulates IFN-g secretion of the NK-92 human natural killer cells. The ED50 range ≤ 2 ng/ml.

