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 ≤ 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

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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

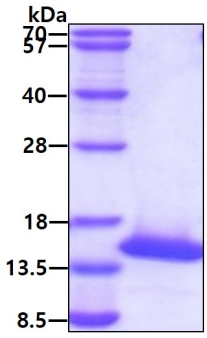
MHKSSFQEQD LLLIRMRQLI DIVDQLKNYV NDLDPESLPA PEDVKRHCER SAFSCFQKVQ LKAANTGGNE QIINVLTKQL KRKLPPTNAG RRQKHRPACP SCDSYEKAPP KEFLERLKSL IQKMIHQHLS

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.

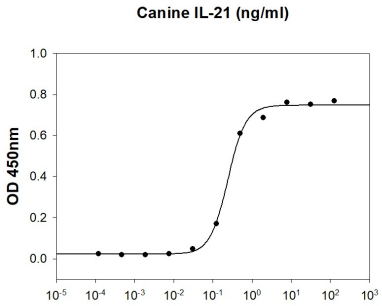
DATA

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.