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Recombinant Mouse IL-21 Protein

Catalog Number: ATGP4049

PRODUCT INFORMATION

Expression system

E.coli

Domain

18-146aa

UniProt No.

09ES17

NCBI Accession No.

NP 068554.1

Alternative Names

Interleukin-21, IL-21, CVID11, IL21, IL-21, IL-21Za11interleukin-21, Interleukin-21 isoform, Za11, UscroPMagleukin-21, IL-21, 2

PRODUCT SPECIFICATION

Molecular Weight

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

Concentration

1mg/ml (determined by Bradford assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4)

Purity

> 90% 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 100 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.



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BACKGROUND

Description

IL-21, also known as Interleukin-21, is produced from activated helper T cells such as Th17 cells and is a member of the common-γ chain family of cytokines that includes IL-2, IL-4, IL-7, IL-9, and IL-15. Previous studies have shown that IL-21 plays an important role in the regulation of both innate and adaptive immune responses. IL-21 is critical for NK cell activation and expansion. IL-21 also promotes terminal B cell differentiation into plasma cells and antibody production. Furthermore, IL-21 enhances antigen-specific CD8 T cell expansion and the differentiation of follicular helper T cells in vivo. IL-21 also promotes the differentiation of the inflammatory Th17 lineage and contributes to autoimmunity. IL-21 isoform is an alternative splice variant form of IL-21 that we previously identified and reported to have a similar function as original IL-21. Follicular helper T cells also produce IL-21 to activate and differentiate B cells. Recombinant mouse IL-21, was expressed in E. coli and purified by using conventional chromatography techniques.

Amino acid Sequence

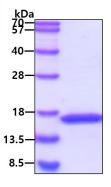
MHKSSPQGPD RLLIRLRHLI DIVEQLKIYE NDLDPELLSA PQDVKGHCEH AAFACFQKAK LKPSNPGNNK TFIIDLVAQL RRRLPARRGG KKQKHIAKCP SCDSYEKRTP KEFLERLKWL LQKMIHQHLS

General References

Yuqing Yuan., et al. (2017) JCI Insight. 6;2(7):e90652. Akemi Araki., et al. (2019) J Immunol. 202:3326-3333.

DATA

SDS-PAGE

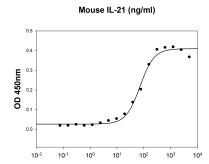


3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

Biological Activity

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Mouse IL-21 stimulates IFN-g secretion of the NK-92 human natural killer cells. The ED50 range ≤ 100 ng/ml.

