

RP00664

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Recombinant Mouse IL-21 Protein

Catalog No.: RP00664

Recombinant

Sequence Information

Species HEK293 cells
Gene ID 60505
Swiss Prot Q9ES17

Tags

C-hFc

Synonyms

IL21; Interleukin-21; IL-21

Product Information

Source <I>E. coli</I>
Purification > 95% by SDS-PAGE.

Endotoxin

<0.1EU/ug of the protein by LAL method.

Formulation

Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

 www.abclonal.com

Background

Interleukin-21 (IL-21) is an approximately 14 kDa four-helix-bundle cytokine in the family of cytokines that utilize the common gamma chain (gamma c) as a receptor subunit. gamma c is also a subunit of the receptors for IL-2, IL-4, IL-7, IL-9, and IL-15 . IL-21 is produced by activated T follicular helper cells (Tfh), Th17 cells, and NKT cells. It exerts its biological effects through a heterodimeric receptor complex of gamma c and the IL-21-specific IL-21 R. Tfh-derived IL-21 plays an important role in the development of humoral immunity through its autocrine effects on the Tfh cell and paracrine effects on immunoglobulin affinity maturation, plasma cell differentiation, and B cell memory responses . It is also required for the migration of dendritic cells to draining lymph nodes . IL-21 regulates several aspects of T cell function. It co stimulates the activation, proliferation, and survival of CD8+ T cells and NKT cells and promotes Th17 cell polarization . It blocks the generation of regulatory T cells and their suppressive effects on CD4+ T cells. IL-21 R engagement enhances the cytolytic activity and IFN-gamma production of activated NK cells but limits the expansion of resting NK cells . In addition, IL-21 suppresses cutaneous hypersensitivity reactions by limiting allergen-specific IgE production and mast cell degranulation . Dysregulation of the IL 21/IL 21 R system contributes to the development of multiple immunological disorders . The mouse IL 21 precursor contains a predicted 17 amino acid (aa) signal sequence and a 129 aa mature chain. Mature mouse IL-21 shares 66%, 59%, 58%, and 88% aa sequence identity with mature canine, human, rabbit, and rat IL-21, respectively.

Basic Information

Description

Recombinant Mouse IL-21 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (His18-Ser146) of Mouse IL-21 (Accession #NP_068554.1) fused with a hFc tag at the C-terminus.

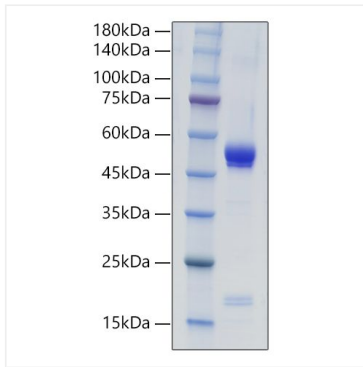
Bio-Activity

Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

* For your safety and health, please wear a lab coat and disposable gloves when handling.

Validation Data



Recombinant Mouse IL-21 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 45-60kDa.