

## Recombinant mouse IL21

Catalog No: #AG0043

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## Description

|                       |  |
|-----------------------|--|
| Product Name          | Recombinant mouse IL21   |
| Host Species          | HEK293   |
| Purification          | > 95% by Tris-Bis PAGE;> 95% by SEC-HPLC   |
| Immunogen Description | His18-Ser146   |
| Target Name           | IL21   |
| Other Names           | CVID11; IL21; IL-21; IL-21Za11interleukin-21; interleukin 21; interleukin-21 isoform; Za11 |
| Accession No.         | Uniprot:Q9ES17Gene ID:60505  |
| Uniprot               | Q9ES17   |
| GeneID                | 60505  |
| Target Species        | mouse  |
| Calculated MW         | 15.0 KDa   |
| Tag Info              | additional amino acid free   |
| Formulation           | 0.22 µm filtered solution of PBS, pH 7.4.  |
| Storage               | Aliquot and store at -80°C. Avoid repeated freeze/thaw cycles.                             |

## 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 (1). IL-21 is produced by activated T follicular helper cells (Tfh), Th17 cells, and NKT cells (2-6). It exerts its biological effects through a heterodimeric receptor complex of gamma c and the IL-21-specific IL-21 R (2, 7). 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 (4, 8, 9). It is also required for the migration of dendritic cells to draining lymph nodes (10). 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 (3, 5, 6, 11, 12). It blocks the generation of regulatory T cells and their suppressive effects on CD4+ T cells (13, 14). IL-21 R engagement enhances the cytolytic activity and IFN-gamma production of activated NK cells but limits the expansion of resting NK cells (15). In addition, IL-21 suppresses cutaneous hypersensitivity reactions by limiting allergen-specific IgE production and mast cell degranulation (16). Dysregulation of the IL-21/IL-21 R system contributes to the development of multiple immunological disorders (1, 17). 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.

Note: This product is for in vitro research use only