# IL21 Mouse Recombinant Protein

## PRODUCT OVERVIEW

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| **Product Name** | IL21, Recombinant Protein |
| **Full Product Name** | Recombinant Mouse IL21 protein (His tag) |
| **Product Gene Name** | IL21 recombinant protein |
| **Product Synonym Names** | Interleukin; IL-21; Interleukin-21; Za11; Il21 |
| **Sequence** | His18-Ser1 46 |
| **Host** | E coli |
| **Form/Format** | Lyophilized from sterile PBS, pH 7.4.<br>Normally 5%-8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.<br>Please refer to the specific buffer information in the printed manual. |
| **Purity/Purification** | >95% as determined by reducing SDS-PAGE. |
| **Preparation and Storage** | Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 degree C. Reconstituted protein solution can be stored at 4-8 degree C for 2-7 days. Aliquots of reconstituted samples are stable at < -20 degree C for 3 months. |
| **Molecular Weight** | 16,811 Da |
| **3D Structure** | ModBase 3D Structure for Q9ES17 |
| **Species** | Mouse |
| **Tag** | N-His |
| **Endotoxin** | <10EU/mg of the protein as determined by the LAL method. |
| **Reconstitution** | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5mg/mL. Concentration is measured by UV-Vis. |
| **Product Categories/Family for IL21 recombinant protein** | Proteins; Recombinant Proteins; Others; Immunology; Cancer; Neuroscience |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Related Product Information for IL21 recombinant protein** | Interleukin-21 also known as IL-21 is a protein that in mouse is encoded by the IL21 gene, belongs to the IL-15/IL-21 family. Interleukin-21 is a cytokine that has potent regulatory effects on cells of the immune system, including natural killer (NK) cells and cytotoxic T cells that can destroy virally infected or cancerous cells. This cytokine induces cell division/proliferation in its target cells. |
| **Other Notes** | Small volumes of IL21 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for IL21 purchase** | MBS2580870 is a recombinant protein targeting IL21. Also known as Recombinant Mouse IL21 protein (His tag). Host: E coli. |

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IL21. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 11140821 |
| **NCBI GeneID** | 60505 |

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| **NCBI Accession #** | NP_068554.1 |
| **UniProt Primary Accession #** | Q9ES17 |
| **UniProt Related Accession #** | Q9ES17 |
| **GenBank Nucleotide #** | NM_021782.3 |
| **NCBI Official Full Name** | interleukin-21 isoform 2 |
| **NCBI Official Synonym Full Names** | interleukin 21 |
| **NCBI Official Symbol** | Il21 |
| **NCBI Official Synonym Symbols** | IL-21 |
| **UniProt Protein Name** | Interleukin-21 |
| **Protein Family** | Interleukin |
| **UniProt Gene Name** | Il21 |
| **UniProt Synonym Gene Names** | IL-21 |
| **UniProt Entry Name** | IL21_MOUSE |
| **NCBI Protein Information** | interleukin-21 |
| **UniProt Comments for IL21** | IL21: Cytokine with immunoregulatory activity. May promote the transition between innate and adaptive immunity. Induces the production of IgG(1) and IgG(3) in B-cells. May play a role in proliferation and maturation of natural killer (NK) cells in synergy with IL15. May regulate proliferation of mature B- and T-cells in response to activating stimuli. In synergy with IL15 and IL18 stimulates interferon gamma production in T-cells and NK cells. During T-cell mediated immune response may inhibit dendritic cells (DC) activation and maturation. Belongs to the IL-15/IL-21 family. 2 isoforms of the human protein are produced by alternative splicing.<br><br>Protein type: Apoptosis; Cytokine; Secreted; Cell development/differentiation; Secreted, signal peptide<br><br>Cellular Component: extracellular space; extracellular region<br><br>Molecular Function: hematopoietin/interferon-class (D200-domain) cytokine receptor binding; interleukin-2 receptor binding; cytokine activity<br><br>Biological Process: positive regulation of interleukin-17 production; positive regulation of natural killer cell cytokine production; cell maturation; B cell apoptosis; positive regulation of natural killer cell mediated cytotoxicity; positive regulation of interleukin-10 production; positive regulation of tyrosine phosphorylation of Stat3 protein; positive regulation of natural killer cell differentiation; positive regulation of tyrosine phosphorylation of Stat1 protein; positive regulation of cell proliferation; positive regulation of B cell proliferation; positive regulation of B cell differentiation; positive regulation of T cell proliferation; immune response; positive regulation of interferon-gamma biosynthetic process |
| **Research Articles on IL21** | **1.** Inflammation and lymphopenia trigger autoimmunity by suppression of IL-2-controlled regulatory T cell and increase of IL-21-mediated effector T cell expansion. |
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