IL-21 Active Protein

PRODUCT OVERVIEW

Product Name	IL-21, Active Protein
Full Product Name	IL-21 (mouse), (recombinant)
Product Gene Name	IL-21 active protein
Host	E Coli
Form/Format	Lyophilized from a sterile (0.2 micron) filtered solution containing 20 mM sodium bicarbonate, pH8.5
Purity/Purification	>=95% (SDS-PAGE)
Preparation and Storage	For long term storage, store at -80 degree C Avoid freeze/thaw cycles. After reconstitution, prepare aliquots and store at -80 degree C. For long term storage, it is recommended to dilute to working aliquots in a 0.1% BSA solution
Molecular Weight	16,811 Da
3D Structure	ModBase 3D Structure for Q9ES17
Active Protein Note	Protein activity can be an ambiguous term. Please refer to the data sheet or inquire with Technical Support to determine the definition of activity for this product.
Amino Acids	Contains 130 amino acids
Endotoxin	<=1EU/ug protein (LAL test)
Biological Activity	Mouse thymocyte proliferation with costimulation; ED50 <= 10 ng/mL (>= 1.0 x 105 units/mg)
Reconstitution	Reconstitute in sterile water at 0.1mg/mL
Product Categories/Family for IL-21 active protein	Cellular Analysis; Cell Signaling
Related Product Information for IL-21 active protein	Interleukin 21 (IL-21) is normally expressed by activated CD4+ T cells. The IL-21 receptor activates the JAK/STAT signaling pathway and is expressed on T, B, and natural killer (NK) cells. IL-21 cooperates with IL-4 for the production of multiple antibody classes in B cells. IL-21 has pleiotropic effects on the proliferation, differentiation, and effector functions of B, T, NK, and dendritic cells.
Other Notes	Small volumes of IL-21 active 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 IL-21 purchase	MBS567249 is an active protein targeting IL-21. Also known as IL-21 (mouse), (recombinant). Host: E Coli.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for IL-21. It may not necessarily be applicable to this product.

NCBI GI #	11140821
NCBI GeneID	60505
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
UniProt Gene Name	Il21
UniProt Synonym Gene Names	IL-21
UniProt Entry Name	IL21_MOUSE
NCBI Protein Information	interleukin-21
UniProt Comments for IL-21	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. Protein type: Apoptosis; Cytokine; Secreted; Cell development/differentiation; Secreted, signal peptide Cellular Component: extracellular space; extracellular region Molecular Function: hematopoietin/interferon-class (D200-domain) cytokine receptor binding; interleukin-2 receptor binding; cytokine activity 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 IL-21	**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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