

Recombinant Murine Interleukin-21 (m-IL-21)

CATALOG #:	4183-10	10 µg
	4183-1000	1 mg
LOT #:	_____	
SOURCE:	<i>E. coli</i>	
PURITY:	> 95% by SDS-PAGE and RP-HPLC analysis Endotoxin level is < 0.01 ng per µg of rm-IL-21.	
MOL. WEIGHT:	15.095 kDa	
FORM:	Lyophilized from 20 mM NaHCO ₃ , pH 8.5	

RECONSTITUTION:

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water to a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

STORAGE CONDITIONS:

The lyophilized rm-21 is very stable at -20 °C. Upon reconstitution the product should be aliquoted and stored at -20 °C. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

DESCRIPTION:

Mouse Interleukin-21 (m-IL-21), expressed by activated CD4(+) T cells, is the newest member of the common gamma-chain family of cytokines, which also includes IL-2, IL-4, IL-7, IL-9, and IL-13. Its private receptor, IL-21R, is expressed on T, B, and NK cells. Within the B cell lineage, IL-21 regulates IgG1 production and cooperates with IL-4 for the production of multiple Ab classes *in vivo*. IL-21R has been shown to activate the Janus kinase/signal transducers and activators of transcription signaling pathways upon ligand binding. Initial studies have demonstrated that IL-21 has pleiotropic effects on the proliferation, the differentiation, and the effector functions of B, T, natural killer, and dendritic cells. Recombinant mouse IL-21, produced in *E.coli*, is a single, non-glycosylated polypeptide chain containing 130 amino acids and having a total molecular mass of 15,095 Daltons.

BIOLOGICAL ACTIVITY:

The bioactivity is determined by a dose-dependent proliferation of lymphocytes co-stimulated with anti-CD3ε and is typically 2-50 ng/ml.

AA Sequence:

MHKSSPQGPD RLLIRLRHLI DIVEQLKIYE NDLDPPELLSA PQDVKGHCEH AAFACFQKAK LKPSNPGNNK TFIIDLVAQL RRRLPARRGG KKQKHIKCP SCDSYEK RTP KEFLERLKW LQKMIHQHLS

FOR RESEARCH USE ONLY! Not to be used in humans.

RELATED PRODUCTS:

Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

Adipocyte & Lipid Transfer

- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- PLTP Activity Assay & Drug Discovery Kits
- Total Cholesterol Quantification Kit

Molecular Biology & Reporter Assays

- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit
- β-Galactosidase Staining Kit & Luciferase Reporter Assay Kit

Growth Factors and Cytokines

Murine Interleukin-21 (m-IL-21)