

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 NDLDPELLSA PQDVKGHCEH AAFACFQKAK
LKPSNPGNNK TFIIDLVAQL RRRLPARRGG KKQKHIACPK SCDSYEK RTP KEFLERLKWL
LQKMIHQHLS

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

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