

II21

Recombinant Rat Interleukin-21

Catalog No.	CS500A CS500B CS500C	Quantity:	2 µg 10 µg 1 mg
Alternate Names:	IL-21		
Description:	<p>Interleukin-21 (IL-21) is a pleiotropic cytokine produced by CD4+ T cells in response to antigenic stimulation. Its action generally enhances antigen-specific responses of immune cells. The biological effects of IL-21 include induction of differentiation of T-cells-stimulated B-cells into plasma cells and memory B-cells, stimulation with IL-4 of IgG production, and induction of apoptotic effects in naïve B-cells and stimulated B-cells in the absence of T-cell signaling. Additionally, IL-21 promotes the anti-tumor activity of CD8+ T-cells and NK cells. IL-21 exerts its effect through binding to a specific type I cytokine receptor, IL-21R, which also contains the gamma chain (γc) found in other cytokine receptors including IL-2, IL-4, IL-7, IL-9 and IL-15. The IL-21/IL-21R interaction triggers a cascade of events which includes activation of the tyrosine kinases JAK1 and JAK3, followed by activation of the transcription factors STAT1 and STAT3.</p> <p>Recombinant Rat IL-21 is a single non-glycosylated polypeptide chain containing 129 amino acids.</p>		
Gene ID:	365769		
Source:	<i>E. coli</i>		
Molecular Weight:	15.2 kDa		
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.		
Purity:	> 95 % by SDS-PAGE and HPLC analyses.		
Endotoxin Level:	Less than 1EU/µg as determined by LAL method.		
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ determined by inhibiting IL-21-dependent proliferation of human N1186 cells is <5000 ng/ml.		
Specific Activity:	> 2.0 × 10 ² IU/mg in the presence of 50 ng/ml.		
Amino Acid Sequence:	HKSSPQRPDH LLIRLRHLMD IVEQLKIYEN DLDPELLTAP QDVKGQCEHE AFACFQKAKL KPSNTGNNKT FINDLLAQLR RRLPAKRTGN KQRHMAKCPS CDLYEKKTPK EFLERLKWLL QKMIHQHLS		
Reconstitution:	Centrifuge vial prior to opening. Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/ml. Further dilutions should be made in appropriate buffered solutions.		
Storage & Stability:	This lyophilized preparation is stable at 2-4°C, but should be kept desiccated at -20°C for long term storage. Upon reconstitution, the preparation is stable for up to one week at 2-4°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. Avoid repeated freeze/thaw cycles.		

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