

IL7

Recombinant Human Interleukin-7

Catalog No.	CRI108A	Quantity:	2 µg
	CRI108B		10 µg
	CRI108C		1.0 mg

Alternate Names: IL-7, Lymphopoietin, pre-B cell factor

Description: IL-7 is a cytokine important for B and T cell development. This cytokine and the hepatocyte growth factor (HGF) form a heterodimer that functions as a pre-pro-B cell growth-stimulating factor. This cytokine is found to be a cofactor for V(D)J rearrangement of the T cell receptor beta (TCRB) during early T cell development. IL-7 is constitutively produced by stromal cells from the bone marrow and thymus and can be produced locally by intestinal epithelial and epithelial goblet cells, and may serve as a regulatory factor for intestinal mucosal lymphocytes. IL-7 signals through the IL-7R to promote the differentiation of hematopoietic stem cells to lymphoid precursor cells, which give rise to T cells, B cells, and natural killer cells. IL-7 can also co-stimulate the proliferation of mature T cells in combination with other factors such as ConA and IL-2. Human and mouse IL-7 show species cross-reactivity.

Recombinant IL-7 is a single polypeptide chain comprised of 153 amino acids.

Gene ID: 3574

UniProtKB: P13232

Source: *E. coli*

Molecular Weight: Monomer, 17.5 kDa (153 aa)

Formulation: Lyophilized from a sterile filtered solution of 10mM acetic acid.

Purity: >95% by reducing and non-reducing SDS-PAGE

Biological Activity: The ED₅₀, as determined by the dose-dependent stimulation of the proliferation of mouse 2E8 cells, is ≤ 1 ng/mL.

Specific Activity: 3.5 x 10⁶ U/mg

Endotoxin Level: ≤ 1 EU/µg

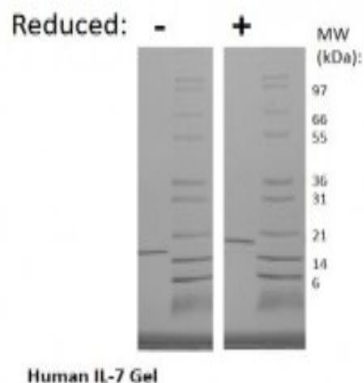
Amino Acid Sequence: MDCDIEGKDG KQYESVLMVS IDQLLDSTMKE IGSNCLNNEF NFFKRHICDA
NKEGMFLFRA ARKLRQFLKM NSTGDFDLHL LKVSEGTTIL LNCTGQVKGR
KPAALGEAQP TKSLEENKSL KEQKKLNDLC FLKRLLQEIK TCWNKILMGT KEH

Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX.** Allow several minutes for reconstitution.

Storage & Stability:

Upon receipt, store desiccated at -20 °C to -80 °C for up to 1 year. **Upon reconstitution** store at 2-8 °C for up to 1 month. **For long term storage** reconstitute in working aliquots containing 0.1% BSA and store at -20 °C to -80 °C. **Avoid repeated freeze-thaw cycles.**

SDS-PAGE analysis of Recombinant Human IL-7 on 4-20% Tris-Glycine gel, stained with Coomassie Blue. 1 µg in each lane (-) non-reducing conditions and (+) reducing conditions. Human IL-7 has a predicted MW of 17.5 kDa.



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