

IL11

Recombinant Human Interleukin-11

Catalog No.	CRI176A	Quantity:	2 µg
	CRI176B		10 µg
	CRI176C		1.0 mg

Description: Recombinant Human IL-11 is a single non-glycosylated polypeptide chain containing 179 amino acids.

Background: Interleukin-11 (IL-11) is a pleiotropic cytokine that was originally detected in the conditioned medium of an IL-1 α -stimulated primate bone marrow stromal cell line (PU-34) as a mitogen for the IL-6-responsive murine plasmacytoma cell line T1165. IL-11 was also independently discovered as an adipogenesis inhibitory factor (AGIF). The human IL-11 cDNA encodes a 199 amino acid residue precursor polypeptide with a 21 amino acid residue hydrophobic signal that is processed proteolytically to generate the 178 amino acid residue mature protein. IL-11 contains no cysteine residues or potential glycosylation sites. IL-11 has multiple effects on both hematopoietic and nonhematopoietic cells. Many of the biological effects described for IL-11 overlap those for IL-6. In vitro, IL-11 can synergize with IL-3, IL-4 and SCF to shorten the G0 period of early hematopoietic progenitors. IL-11 also enhances the IL-3-dependent megakaryocyte colony formation. IL-11 has been found to stimulate the T cell dependent development of specific immunoglobulin-secreting B cell.

Gene ID: 3589

Source: *E. coli*

Molecular Weight: 19.1 kDa

Formulation: Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.

Purity: >95% as determined by HPLC and SDS-PAGE analyses.

Endotoxin Level: Less than 1EU/µg of rHuIL-11 as determined by LAL method.

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ as determined by a cell proliferation assay using TF-1 cells is approximately 1-2 ng/ml, corresponding to a specific activity of > 1.0 × 10⁶ IU/mg.

Amino Acid Sequence: MPGPPPGPPR VSPDPRAELD STVLLTRSLL ADTRQLAAQL RDKFPADGDH
 NLDSLPTLAM SAGALGALQL PGVLTRLRAD LLSYLHVQW LRRAGGSSLK
 TLEPELGTLQ ARLDRLRRL QLLMSRLALP QPPDPPAPP LAPPSSAWGG
 IRAAHAILGG LHLLTDWAVR GLLLLKTRL

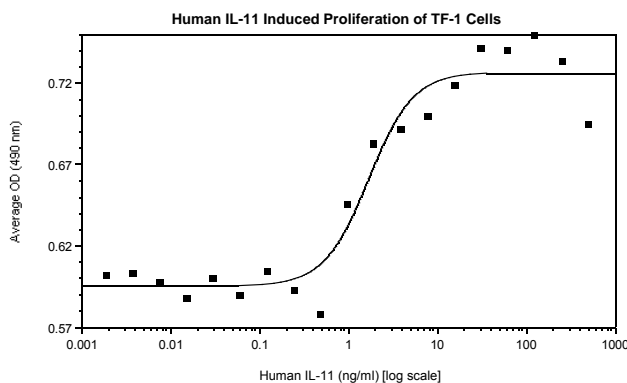
Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water or aqueous buffer to a concentration of 0.1-1.0 mg/mL. Further dilutions should be made in appropriate buffered solutions.



Storage & Stability:

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -80°C. Avoid repeated freeze/thaw cycles. **Avoid repeated freeze/thaw cycles.**

Figure 1: Serial dilutions of Human IL-11 were added to TF-1 cells. Cell proliferation was measured and the linear portion of the curve was used to calculate the ED50.



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