

## IL-4 Protein, Human

<b>Cat. No.:</b>	HY-P70445
<b>Synonyms:</b>	Interleukin-4; IL-4; B-Cell Stimulatory Factor 1; BSF-1; Binetrakin; Lymphocyte Stimulatory Factor 1; Pitrakinra; IL4
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P05112-1 (H25-S153)
<b>Gene ID:</b>	3565
<b>Molecular Weight:</b>	Approximately 13-15 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>           H K C D I T L Q E I    I K T L N S L T E Q    K T L C T E L T V T    D I F A A S K N T T            E K E T F C R A A T    V L R Q F Y S H H E    K D T R C L G A T A    Q Q F H R H K Q L I            R F L K R L D R N L    W G L A G L N S C P    V K E A N Q S T L E    N F L E R L K T I M            R E K Y S K C S S         </p>
<b>Biological Activity</b>	The cell proliferation assay using TF-1 human erythroleukemic cells has an ED <sub>50</sub> value of ≤450 pg/mL.
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of 20 mM Tris-HCL, 150 mM NaCl, pH 7.2 or 50 mM Tris-HCL, 300 mM NaCl, pH 8.0 or 50 mM Tris-HCL, 300 mM NaCl, pH 8.0, 5% trehalose.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	<p>Interleukin-4 (IL-4) is a cytokine that plays an important role in regulating inflammation and immune responses. It induces the differentiation of naïve helper T cells to Th2 cells. This cytokine binds the IL-4 receptor that also binds another cytokine interleukin 13 (IL-13), which may explain the overlapping functions of IL-4 and IL-13. IL-4, originally designated as B-cell growth factor-1 (BSFI), is described in the supernatant of activated EL-4 thymoma cells as a factor that can co-stimulate B-cells activated with submitogenic concentrations of anti-IgM<sup>[1]</sup>.</p>
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## REFERENCES

[1]. Le HV, et al. Isolation and characterization of multiple variants of recombinant human interleukin 4 expressed in mammalian cells. J Biol Chem. 1988 Aug 5;263(22):10817-23.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA