

Recombinant Human Interleukin-10 (rh IL-10) source E. coli

Synonyms: B-TCGF, TGIF, IL10A, Cytokine synthesis inhibitory factor (CSIF).

Introduction: IL-10 is a cytokine produced primarily by monocytes and to a lesser extent by lymphocytes. This cytokine has pleiotropic effects in immunoregulation and inflammation. It down-regulates the expression of Th1 cytokines, MHC class II Ags and costimulatory molecules on macrophages. It also enhances B cell survival, proliferation and antibody production. This cytokine can block NF-kappa B activity and is involved in the regulation of the JAK- SATA signaling pathway. Knockout studies in mice suggested the function of this cytokine as an essential immunoregulator in the intestinal tract.

Human IL-10 active on murine cells, but murine IL-10 is inactive on human cells.

Description: Recombinant human IL-10 produced in *E. coli* is an 18.6 kDa protein of 161 amino acid residues. The rh IL-10 is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.
The aliquots of 1µg and 2µg contain Trehalose 5% (w/vol) for better recovery.

Formulation: The protein was lyophilized from a sterile 0.2µm filtrated solution containing 25mM sodium phosphate, pH 6.5 + 200mM NaCl.

Solubility: It is recommended to reconstitute the lyophilized rh IL-10 in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rh IL-10 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rh IL-10 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence: MSPGQGTQSE NSCTHFPGNL PNMLRDLRDA FSRVKTFQFM KDQLDNLLK
ESLLEDFKGY LGCQALSEMI QFYLEEVMQ AENQDPDIKA HVNSLGENLK TLRLRLRRCH RFLPCENKSK
AVEQVKNAFN KLQEKGIYKA MSEFDIFINY IEAYMTMKIR N

Endotoxicity: The endotoxin level is less than 1 EU/µg determined by LAL method

Biological Activity: Determined by its ability to stimulate proliferation of murine MC/9 cells. The ED50 was found to be ≤ 2.0 ng/ml, corresponding to a specific activity of ≥ 5 x 10⁵ IU/mg

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	11340102
<i>medium</i>	10 µg	Cat.N°	11340103
<i>large</i>	50 µg	Cat.N°	11340105
<i>x-large</i>	250 µg	Cat.N°	11340107
<i>xx-large</i>	1000 µg	Cat.N°	11340108

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