

Recombinant Human Interleukin-10 (IL-10 Human)

Source: E. Coli

Catalog No.: CYT-500

Introduction:

IL10 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-STAT signaling pathway. Knockout studies in mice suggested the function of this cytokine as an essential immunoregulator in the intestinal tract.

Description :

Interleukin-10 Human Recombinant produced in e.coli is a single, non-glycosylated polypeptide chain containing 161 amino acids and having a molecular mass of 16.6 kDa. The IL-10 is purified by proprietary chromatographic techniques.

Synonyms:

B-TCGF, CSIF, TGIF, IL-10, IL10A, MGC126450, MGC126451, Cytokine synthesis inhibitory factor.

Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

Formulation:

The protein was lyophilized from a concentrated (1mg/ml) solution containing no additives.

Solubility:

It is recommended to reconstitute the lyophilized Interleukin-10 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability:

Lyophilized Interleukin-10 although stable at room temperature for 3 weeks, should be stored desiccated below -18 °C. Upon reconstitution 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 avoid freeze-thaw cycles.

Purity:

Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Amino acid sequence:

The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Pro-Gly-Gln-Thr.

Biological Activity:

The ED₅₀ as determined by the dose-dependant stimulation of mouse MC-9 cells was found to be < 0.5 ng/ml, corresponding to a Specific Activity of 3 x 10⁶ IU/mg.

Usage:

Product is furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs,

agricultural or pesticidal products, food additives or household chemicals.

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