



Interleukin-10, human recombinant (rHuIL-10)

Catalog No: 95032
Lot No: XXXXX
Source: *E. coli*
Synonyms: B-TCGF, CSIF, TGIF, IL-10, IL10A, MGC126450, MGC126451, Cytokine synthesis inhibitory factor

Background

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 chains containing 161 amino acids each and having a molecular mass of 18.6 kDa. IL-10 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated (1 mg/ml) solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized Interleukin-10 in sterile 18 MΩ-cm H₂O not less than 100 µg/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 IL10 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 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MSPGQGTQSE NSCTHFPGNL PNMLRDLRDA FSRVKTFQK KDQLDNLLK ESLEDFKGY LGCQALSEMI QFYLEEVMPQ
AENQDPDIKA HVNSLGENLK TRLRLRRCH RFLPCENKSK AVEQVKNAFN KLQEKGIYKA MSEFDIFINY IEAYMTMKIR N

Activity

The ED₅₀ as determined by the dose-dependent co-stimulation (with murine IL-4) of MC/9 cells was found to be less than 2.0 ng/ml, corresponding to a specific activity of 5.0 × 10⁵ IU/mg.

CONTACT US TODAY

BIOMOL GmbH • Kieler Straße 303a • 22525 Hamburg • Germany • info@biomol.de • www.biomol.de

Fon: +49 (0)40-853 260 0 • TOLL FREE IN GERMANY: Fon: 0800-246 66 51



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