

# Interleukin-10

Human, Recombinant (rHuIL-10)

Expressed in *E. coli*

Cat. No. CRP0818

Lot. No. (See product label)

## PRODUCT INFORMATION

**Description:** Interleukin-10 is produced by murine T-cells following their stimulation by lectins. The main source for B-cell-derived Interleukin-10 in mice is Ly-1 B-cells that express CD5 and CD11. Murine keratinocytes also produce IL10.

In humans IL-10 is produced by activated CD8 (+) peripheral blood T-cells, by T-helper CD4 (+) T-cell clones (resembling Th0, Th1, and Th2) after both antigen-specific and polyclonal activation, by B-cell lymphomas, and by monocytes following cell activation by bacterial lipopolysaccharides and mast cells.

**Amino-Acid Sequence:** 160aa,(The sequence of the first five N-terminal amino acids was determined and was found to be Ser-Pro-Gly-Gln-Thr.), non-glycosylated

**M. W. :** 18,648 Da

**Recombinant:** Expressed in *E. coli*

**Purity:** >98% as determined by SDS-PAGE , RP-HPLC and FPLC.

**Formulation:** The protein was lyophilized from a concentrated (1mg/ml) solution containing 60mM PBS pH-6.5 and 100mM NaCl.

**Specific Activity:** The ED50 as determined by the dose-dependant co-stimulation with murine IL-4 of MC-9 cells was found to be < 2ng/ml, corresponding to a Specific Activity of  $1.5 \times 10^6$  IU/mg.

**Endotoxin:** Less than 0.1 ng/μg (IEU/μg) of rHuIL-10.

**Reconstitution:** It is recommended to reconstitute the lyophilized rHuIL-10 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

**Storage:** Lyophilized rHuIL-10 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rHuIL-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). Aliquot to avoid repeated freeze-thaw cycles.

## FOR RESEARCH USE ONLY



[PDB](#) rendering based on 2H24.

## GENE INFORMATION

**Gene Name:** [IL10](#)

**Gene Alias:** CSIF, IL10A, MGC126450, MGC126451, TGIF

**Gene Type:** protein coding

**mRNA Refseq:** [NM\\_000572](#)

**Protein Refseq:** [NP\\_000563](#)

**MIM:** [124092](#)

**GeneID:** [3586](#)

**Chromosome Location:** 1q31-q32

**Pathway:** Cytokine-cytokine receptor interaction ; Jak-STAT signaling pathway; T cell receptor signaling pathway

**Function:** cytokine activity; interleukin-10 receptor binding; protein binding

## REFERENCES

- 1.Grimbaldeston M, et al . Mast cell–derived interleukin 10 limits skin pathology in contact dermatitis and chronic irradiation with ultraviolet B. *Nature Immunology*. 2007; 8: 1095-1104
- 2.Moore KW, et al. Interleukin-10 and the interleukin-10 receptor. *Annu. Rev. Immunol*. 2001; 19: 683-765
- 3.Beebe A M, et al. The role of interleukin-10 in autoimmune disease: systemic lupus erythematosus (SLE) and multiple sclerosis (MS). *Cytokine Growth Factor Rev*. 2003; 13 (4-5): 403-412

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