Datasheet

Cat. No. PH1002

Recombinant Human IL-10, Tag Free

General Information

Synonym	Interleukin-10, IL-10, Cytokine synthesis inhibitory factor, CSIF, IL10, RP11-262N9.1, IL10A, MGC126450, MGC126451, TGIF
Accession #	NP_000563.1
Molecular Characterization	Ser19-Asn178
M.Wt	18.6 kDa
Source	293T cells
Bio Activity	Determined by the dose-dependent stimulation of murine CTLL-2 cells: ED50: < 0.1 ng/mL Specific activity: > $1x10^7$units/mg.

Components and Storage

Formulation	The protein is dissolved in PBS buffer.
Storage	This product is stable after storage at: • 4°C for 1 week; • -20°C for 3 months. • **Please avoid repeated freeze-thaw cycles.**

Quality Control

Purity	≥ 95%, by SDS-PAGE and HPLC.
Endotoxin Level	< 0.1 EU/μg

For detail QC information, please see the CoA.

Background

The interleukin-10 (IL-10) family cytokines are powerful immune mediators with versatile functions. IL-10 family of cytokines is comprised of nine members, IL-10; IL-20 subfamily members IL-19, IL-20, IL-22, IL-24, and IL-26; and the distantly related cytokines IL-28A, IL-28B, and IL-29, which are more commonly classified as type III interferons (IFNs) and designated as IFN-λ2, IFN-λ3, and IFN-λ1[1-3].

IL-10, the founding member of this family of cytokines, was originally described as an activity purified from activated CD4+ T helper (Th) 2 cells named cytokine synthesis inhibitory factor (CSIF)[4]. Following its cloning, IL-10 was additionally found to stimulate mast cells, thymocytes, and B cells and have major immunosuppressive effects on myeloid cells[1,5-7]. IL-10 elicits its major suppressive effects on myeloid cells by inhibition of proinflammatory cytokines and antigen-presenting cells (APCs) and other functions[8,9]. IL-10 also has a direct inhibitory effect on memory Th17 and Th2 cells while promoting the survival and action of Foxp3+ regulatory T cells (Tregs) [10-13]. Compromised signaling of the IL-10 pathway is associated with inflammatory diseases such as inflammatory bowel disease (IBD)[14] and is often accompanied by immunopathology during infections.

Reference

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