

Recombinant Human IL-10 Protein

Catalog No.: RP00093 **Recombinant**

Sequence Information

Species	Gene ID	Swiss Prot
Human	3586	P22301

Tags

C-His

Synonyms

CSIF; GVHDS; IL-10; IL10A;
TGIF;IL10;GVHDS;IL-10;IL10A;TGIF

Product Information

Source	Purification
HEK293 cells	> 92% by SDS-PAGE.

Endotoxin

< 0.1 EU/μg of the protein by LAL method.

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

The protein encoded by this gene 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. Mutations in this gene are associated with an increased susceptibility to HIV-1 infection and rheumatoid arthritis.

Basic Information

Description

Recombinant Human IL-10 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Ser19-Asn178) of human IL10/Interleukin-10 (Accession #NP_000563.1) fused with a 6×His tag at the C-terminus.

Bio-Activity

1. Measured in a cell proliferation assay using MC/9-2 mouse mast cells. The ED₅₀ for this effect is 0.13-0.52 ng/mL, corresponding to a specific activity of 1.92×10⁶-7.69×10⁶ units/mg. 2. Measured by its binding ability in a functional ELISA. Immobilized Human IL10 (Catalog: RP00093) at 2 μg/mL (100 μL/well) can bind Human IL10RA (Catalog: RP01648) with a linear range of 0.1-2.9 ng/mL.

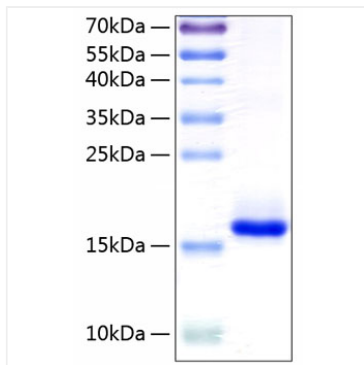
Storage

Store the lyophilized protein at -20°C to -80 °C for long term.

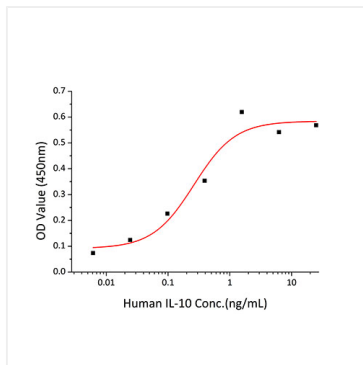
After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.

Avoid repeated freeze/thaw cycles.

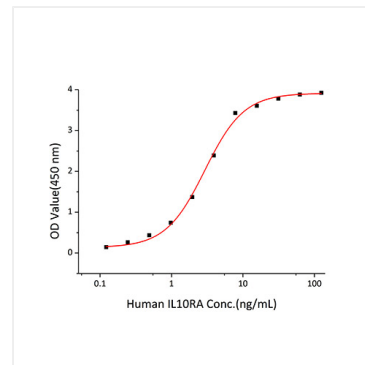
Validation Data



Recombinant Human IL-10 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 18 kDa.



Recombinant Human IL-10 promote cell proliferation of MC/9 2 mouse mast cells. The ED_{50} for this effect is 0.13-0.52 ng/mL, corresponding to a specific activity of 1.92×10^6 - 7.69×10^6 units/mg.



Immobilized Human IL10 (Catalog: RP00093) at 2 μ g/mL (100 μ L/well) can bind Human IL10RA (Catalog: RP01648) with a linear range of 0.1-2.9 ng/mL.