

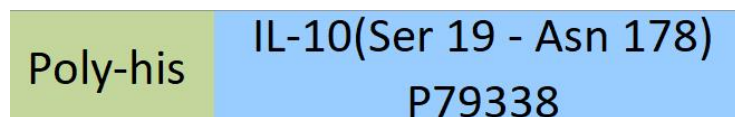
**Synonym**

CSIF,IL-10,IL10A,TGIF,B-TCGF,GVHDS,MGC126450,MGC126451,RP11-262N9.1,Interleukin-10

**Source**

Cynomolgus IL-10 Protein, His Tag(IL0-C4248) is expressed from human 293 cells (HEK293). It contains AA Ser 19 - Asn 178 (Accession # [P79338](#) ).

Predicted N-terminus: His

**Molecular Characterization**

This protein carries a polyhistidine tag at the N-terminus

The protein has a calculated MW of 20.6 kDa. The protein migrates as 21-22 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**Purity**

>90% as determined by SDS-PAGE.

**Formulation**

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

**Reconstitution**

Please see Certificate of Analysis for specific instructions.

*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.*

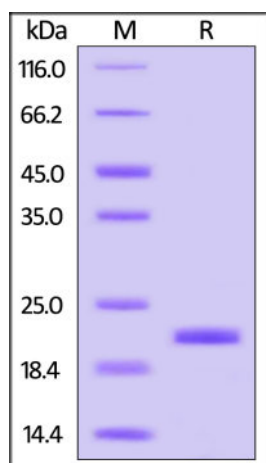
**Storage**

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

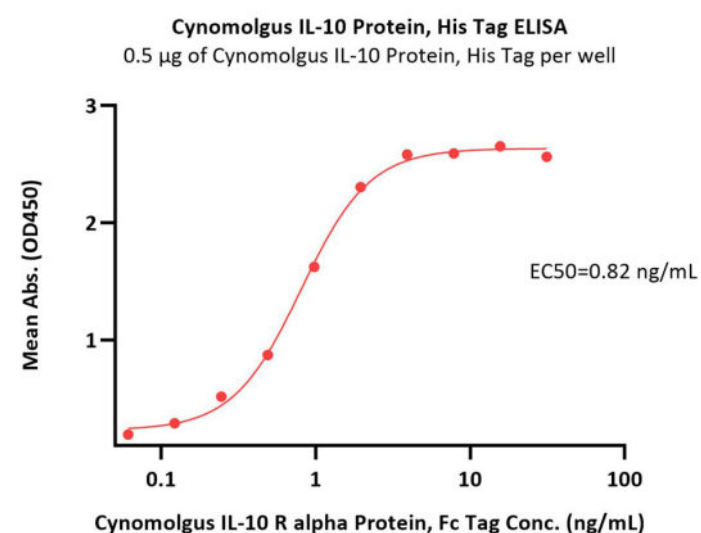
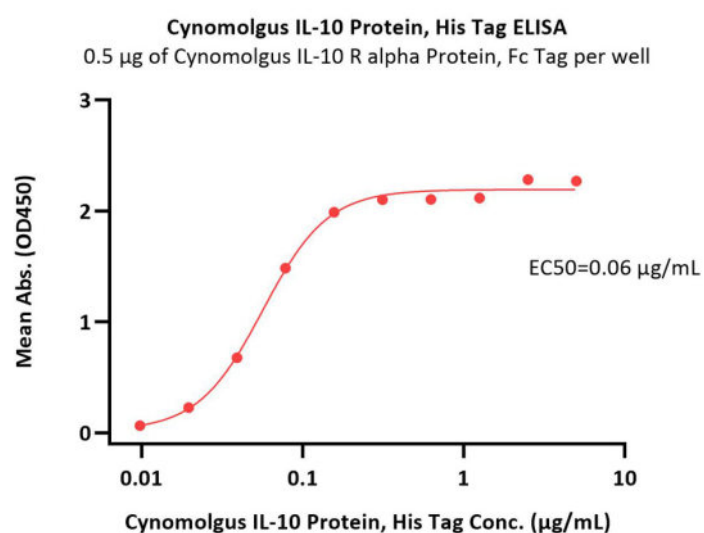
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**

Cynomolgus IL-10 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

**Bioactivity-ELISA**



Immobilized Cynomolgus IL-10 R alpha Protein, Fc Tag (Cat. No. ILR-C5256) at 5 µg/mL (100 µL/well) can bind Cynomolgus IL-10 Protein, His Tag (Cat. No. IL0-C4248) with a linear range of 0.01-0.313 µg/mL (QC tested).

Immobilized Cynomolgus IL-10 Protein, His Tag (Cat. No. IL0-C4248) at 5 µg/mL (100 µL/well) can bind Cynomolgus IL-10 R alpha Protein, Fc Tag (Cat. No. ILR-C5256) with a linear range of 0.1-2 ng/mL (Routinely tested).

## Background

Interleukin-10 (IL-10) is also known as human cytokine synthesis inhibitory factor (CSIF), is an anti-inflammatory cytokine. IL-10 is an immunosuppressive cytokine produced by a variety of mammalian cell types including macrophages, monocytes, T cells, B cells and keratinocytes. Mature human IL-10 shares 72% - 86% amino acid sequence identity with bovine, canine, equine, feline, mouse, ovine, porcine, and rat IL-10. Whereas human IL-10 is active on mouse cells, mouse IL-10 does not act on human cells. IL-10 is capable of inhibiting synthesis of pro-inflammatory cytokines such as IFN- $\gamma$ , IL-2, IL-3, TNF $\alpha$  and GM-CSF made by cells such as macrophages and regulatory T-cells. It also displays a potent ability to suppress the antigen-presentation capacity of antigen presenting cells. However, it is also stimulatory towards certain T cells and mast cells and stimulates B cell maturation and antibody production. Knockout studies suggested the function of Interleukin-10 / IL-10 as an essential immunoregulator in the intestinal tract. Patients with Crohn's disease react favorably towards treatment with bacteria producing recombinant interleukin-10, showing the importance of interleukin-10 for counteracting excessive immunity in the human body.

## Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.