

Recombinant Rat IL-10 Protein

Catalog No.: RP03252

Sequence Information

Species **Gene ID**
Rat 25325

Swiss Prot **Tags**
P29456 C-His

Synonyms

interleukin 10; IL10; IL-10

Product Information

Source **Purification**
HEK293 cells ≥ 90% as
 determined by
 SDS-PAGE.

Calculated MW **Observed MW**
19.48 kDa 20-25 kDa

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.

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.

Background

IL-10 is an anti-inflammatory cytokine that belongs to the IL-10 family. It is produced by a variety of cell lines, including T-cells, macrophages, mast cells, and other cell types, while it is produced primarily by monocytes and to a lesser extent by lymphocytes. IL-10 is mainly expressed in monocytes and Type 2 T helper cells (TH2), mast cells, CD4+CD25+Foxp3+ regulatory T cells, and also in a certain subset of activated T cells and B cells. IL-10 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. IL-10 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. The importance of interleukin 10 for counteracting excessive immunity in the human body is revealed by the fact that patients with Crohn's disease react favorably towards treatment with bacteria producing recombinant IL-10. IL-10 inhibits the synthesis of some cytokines, including IFN-gamma, IL-2, IL-3, TNF, and GM-CSF produced by activated macrophages and by helper 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.

Basic Information

Description

Recombinant Rat IL-10 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser19-Asn178) of Rat IL-10 (Accession #NP_036986.2) fused with a His tag at the C-terminus.

Activity

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at -20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

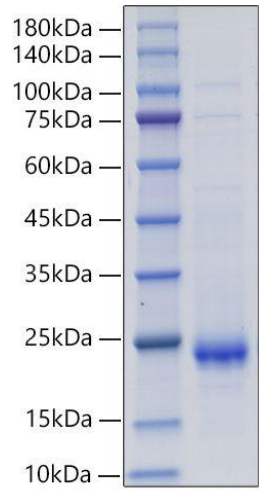
Contact

☎ | 400-999-6126

✉ | cn.market@abclonal.com.cn

🌐 | www.abclonal.com.cn

Validation Data



Recombinant Rat IL-10 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.