Biotinylated Human IL-11 Protein, His,Avitag™ (MALS verified)

Catalog # IL1-H82E3

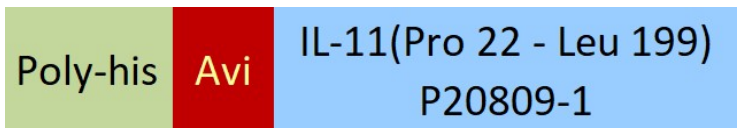
Synonym

IL-11,Interleukin-11,AGIF,Oprelvekin,IL11

Source

Biotinylated Human IL-11, His,Avitag(IL1-H82E3) is expressed from human 293 cells (HEK293). It contains AA Pro 22 - Leu 199 (Accession # P20809-1). Predicted N-terminus: His

Molecular Characterization



This protein carries a polyhistidine tag at the N-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 22.7 kDa. The protein migrates as 25-30 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, 0.5 M Arginine, 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

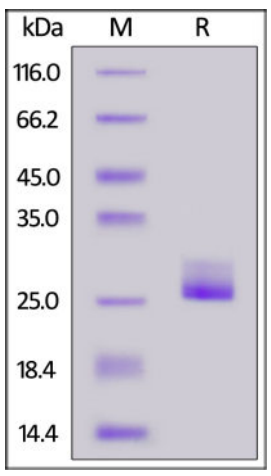
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

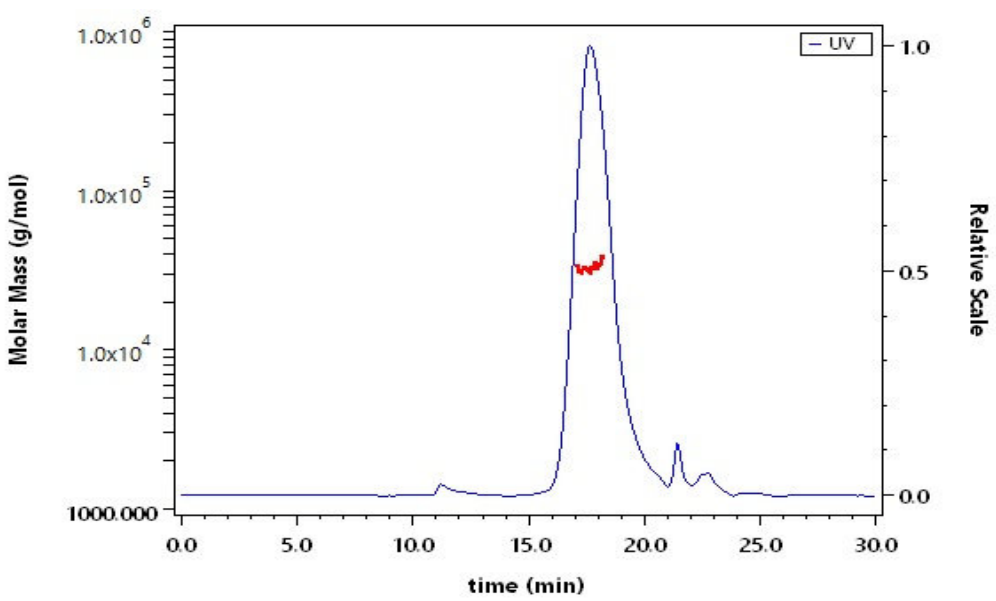
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



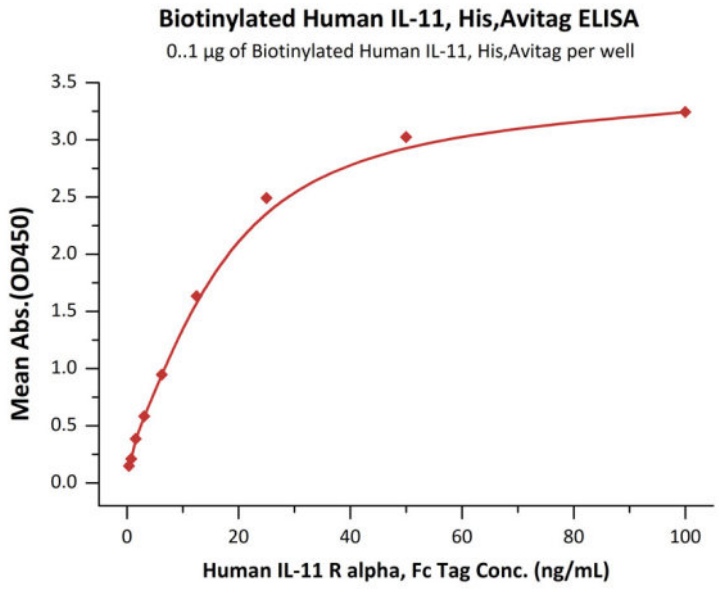
Biotinylated Human IL-11, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

SEC-MALS



The purity of Biotinylated Human IL-11, His,Avitag (Cat. No. IL1-H82E3) is more than 90% and the molecular weight of this protein is around 20-35 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Biotinylated Human IL-11, His,Avitag (Cat. No. IL1-H82E3) at 1 μg/mL (100 μL/well) on streptavidin precoated (0.5 μg/well) plate can bind Human IL-11 R alpha, Fc Tag (Cat. No. ILR-H5256) with a linear range of 0.4-25 ng/mL (QC tested).

Background

Interleukin-11 (IL-11) is a pleiotropic cytokine that stimulates megakaryocytopoiesis, resulting in increased production of platelets, as well as activating osteoclasts, inhibiting epithelial cell proliferation and apoptosis, and inhibiting macrophage mediator production. These functions may be particularly important in mediating the hematopoietic, osseous and mucosal protective effects of IL-11. The cytokine also possesses anti-inflammatory activity, and has been proposed as a therapeutic agent in the treatment of chronic inflammatory diseases, such as Crohn's disease and rheumatoid arthritis. Although IL-11 was initially believed to be restricted to mammals, subsequent studies demonstrated it to be expressed in fish. Despite close similarity in gene structure and conservation of key amino acids between fish and mammalian IL-11, they share relatively low overall amino acid identity and may not necessarily be functionally analogous.