

Biotinylated Human IL-5 Protein, His,Avitag™ (MALS verified)

Catalog # IL5-H82Q5



Synonym

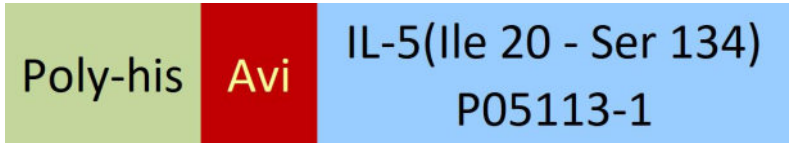
IL-5, TRF, IL5, Interleukin-5

Source

Biotinylated Human IL-5, His,Avitag (IL5-H82Q5) is expressed from human 293 cells (HEK293). It contains AA Ile 20 - Ser 134 (Accession # [P05113-1](#)).

Predicted N-terminus: His

Molecular Characterization



[Other Tags and Version Biotin & Other Labeled Version](#)

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

The protein has a calculated MW of 16.7 kDa. The protein migrates as 20-25 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

The protein is designed as a dimer.

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.

>95% as determined by SEC-MALS.

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:

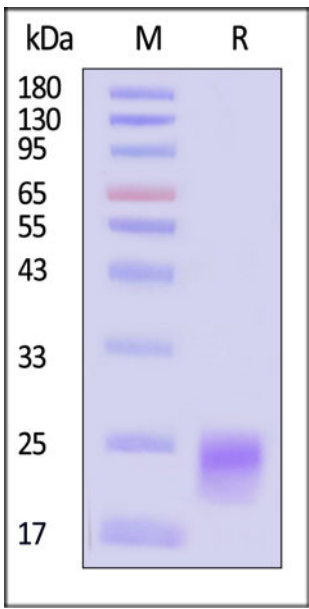
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

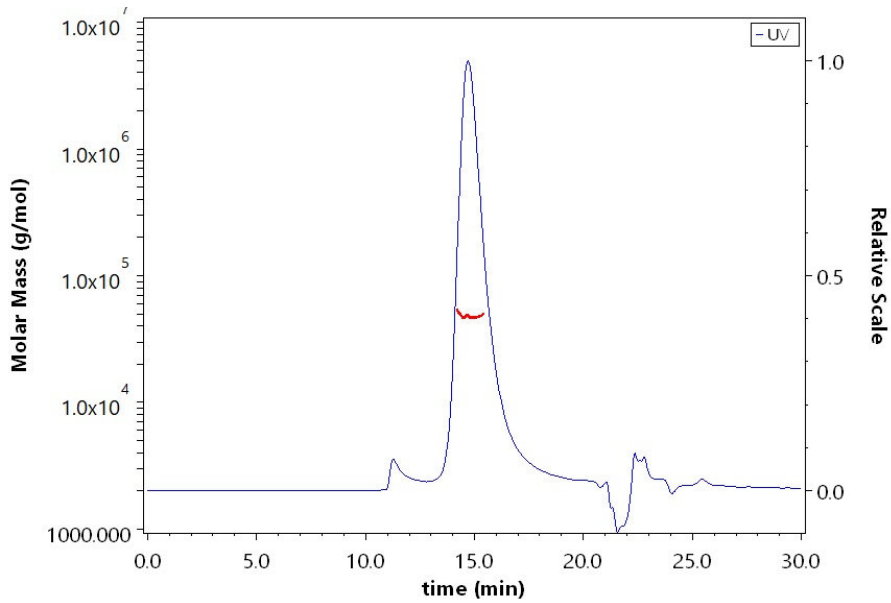
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE

SEC-MALS

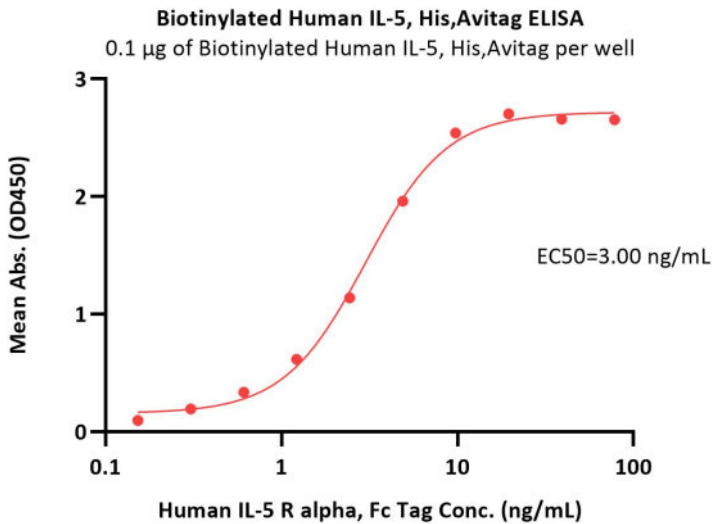


Biotinylated Human IL-5, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).



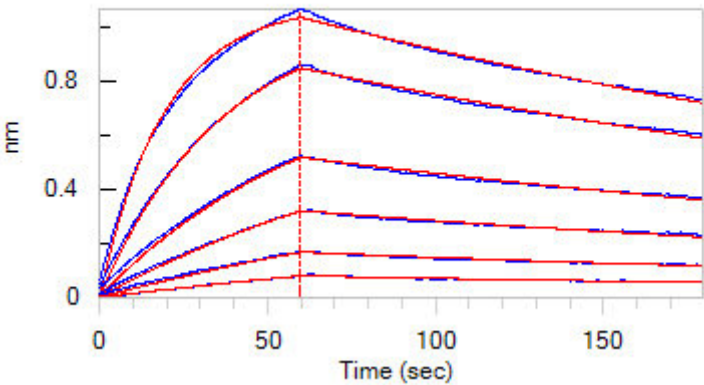
The purity of Biotinylated Human IL-5, His,Avitag (Cat. No. IL5-H82Q5) is more than 95% and the molecular weight of this protein is around 38-52 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Biotinylated Human IL-5, His,Avitag (Cat. No. IL5-H82Q5) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Human IL-5 R alpha, Fc Tag (Cat. No. ILA-H5269) with a linear range of 0.2-10 ng/mL (QC tested).

Bioactivity-BLI



Loaded Biotinylated Human IL-5, His,Avitag (Cat. No. IL5-H82Q5) on SA Biosensor, can bind Human IL-5 R alpha, His Tag (Cat. No. ILA-H52H4) with an affinity constant of 12.6 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Interleukin 5 (IL5) is an interleukin produced by type-2 T helper cells and mast cells. IL-5 is a 115-amino acid (in human, 133 in the mouse) -long TH2 cytokine that is part of the hematopoietic family. Unlike other members of this cytokine family (namely interleukin 3 and GM-CSF), this glycoprotein in its active form is a homodimer. Interleukin-5 has long been associated with the cause of several allergic diseases including allergic rhinitis and asthma, wherein a large increase in the number of circulating, airway tissue, and induced sputum eosinophils have been observed. Given the high concordance of eosinophils and, in particular, allergic

asthma pathology, it has been widely speculated that eosinophils have an important role in the pathology of this disease. Drugs that target IL-5 are mepolizumab and reslizumab.



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