

Biotinylated Cynomolgus IL-2 Protein, His,Avitag™ (MALS verified)

Catalog # IL2-C82E4



Synonym

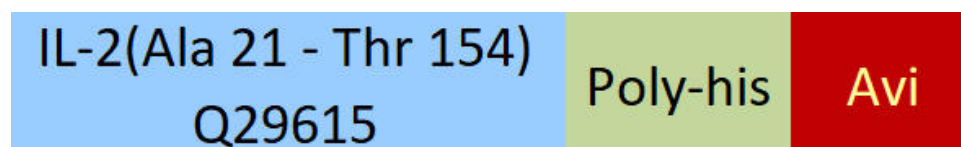
IL2, TCGF, lymphokine, Interleukin 2

Source

Biotinylated Cynomolgus IL-2 Protein, His,Avitag (IL2-C82E4) is expressed from human 293 cells (HEK293). It contains AA Ala 21 - Thr 154 (Accession # [Q29615](#)).

Predicted N-terminus: Ala 21

Molecular Characterization



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

The protein has a calculated MW of 19.1 kDa. The protein migrates as 19-21 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) 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

>95% as determined by SDS-PAGE.

>90% 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.

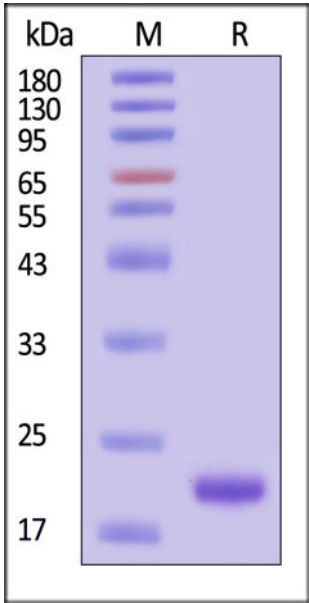
This product is stable after storage at:

- -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

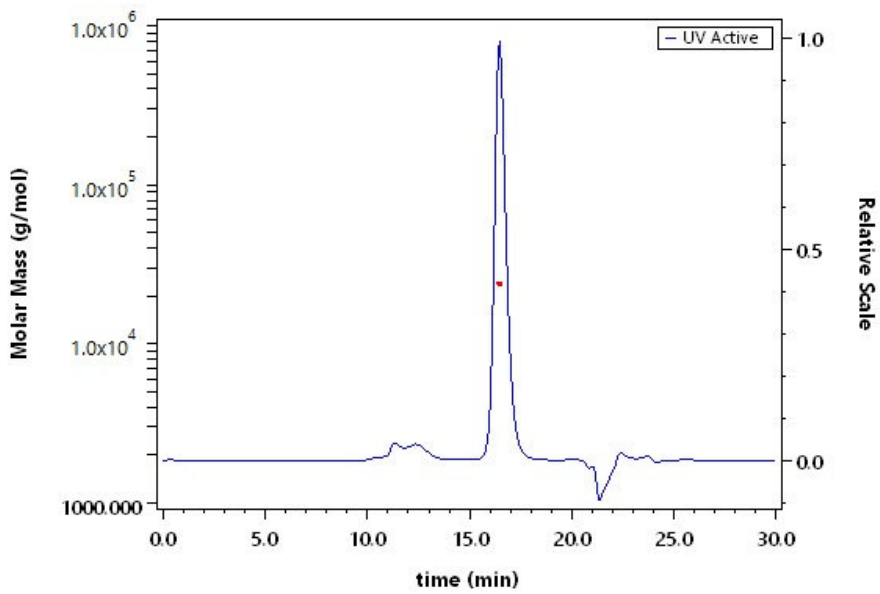
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



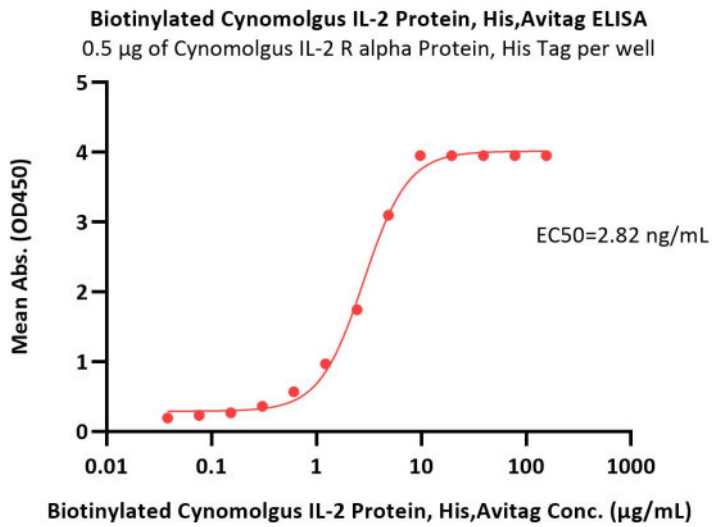
Biotinylated Cynomolgus IL-2 Protein, His,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

SEC-MALS



The purity of Biotinylated Cynomolgus IL-2 Protein, His,Avitag (Cat. No. IL2-C82E4) is more than 90% and the molecular weight of this protein is around 19-30 kDa verified by SEC-MALS.

Bioactivity-ELISA



Immobilized Cynomolgus IL-2 R alpha Protein, His Tag (Cat. No. ILA-C52H8) at 5 µg/mL (100 µL/well) can bind Biotinylated Cynomolgus IL-2 Protein, His,Avitag (Cat. No. IL2-C82E4) with a linear range of 0.03-10 ng/mL (QC tested).

Background

Interleukin-2 (IL-2) is an interleukin, a type of cytokine immune system signaling molecule, which is a leukocytotropic hormone that is instrumental in the body's natural response to microbial infection and in discriminating between foreign (non-self) and self. IL-2 mediates its effects by binding to IL-2 receptors, which are expressed by lymphocytes, the cells that are responsible for immunity. Mature human IL-2 shares 56% and 66% aa sequence identity with mouse and rat IL-2, respectively. Human and mouse IL-2 exhibit crossspecies activity. The receptor for IL-2 consists of three subunits that are present on the cell surface in varying preformed complexes. IL-2 is also necessary during T cell development in the thymus for the maturation of a unique subset of T cells that are termed regulatory T cells (T-regs). After exiting from the thymus, T-Regs function to prevent other T cells from recognizing and reacting against "self antigens", which could result in "autoimmunity". T-Regs do so by preventing the responding cells from producing IL-2. Thus, IL-2 is required to discriminate between self and non-self, another one of the unique characteristics of the immune system.



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