

Biotinylated Human IL-33 Protein, His,Avitag™ (MALS verified)

Catalog # IL3-H82H5



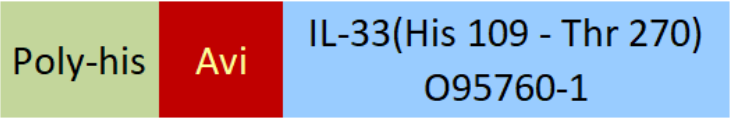
Synonym

IL33,DV27,C9ORF26,IL1F11,NFHEV,DKFZp586H0523,DVS27,NFEHEV,RP11-575C20.2

Source

Biotinylated Human IL-33, His,Avitag(IL3-H82H5) is expressed from human 293 cells (HEK293). It contains AA His 109 - Thr 270 (Accession # [O95760-1](#)). 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 21.9 kDa. The protein migrates as 28-33 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, pH7.4 with trehalose as protectant.  
Contact us for customized product form or formulation.

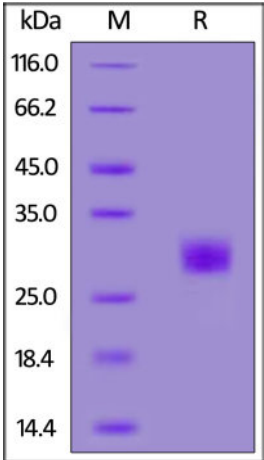
Reconstitution

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

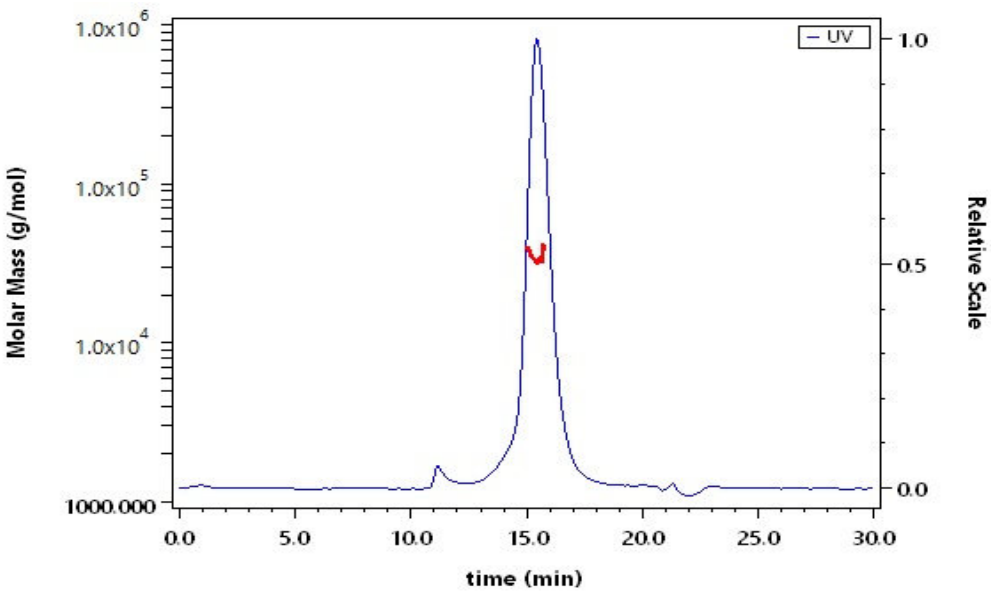
For long term storage, the product should be stored at lyophilized state at -20°C or lower.  
*Please avoid repeated freeze-thaw cycles.*  
This product is stable after storage at:  
• -20°C to -70°C for 12 months in lyophilized state;  
• -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human IL-33, 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



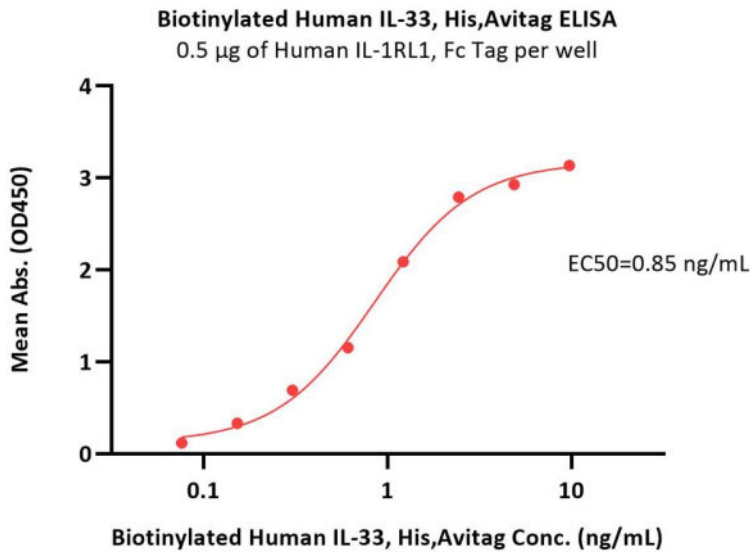
The purity of Biotinylated Human IL-33, His,Avitag (Cat. No. IL3-H82H5) is more than 90% and the molecular weight of this protein is around 25-40 kDa verified by SEC-MALS.  
[Report](#)

Bioactivity-ELISA

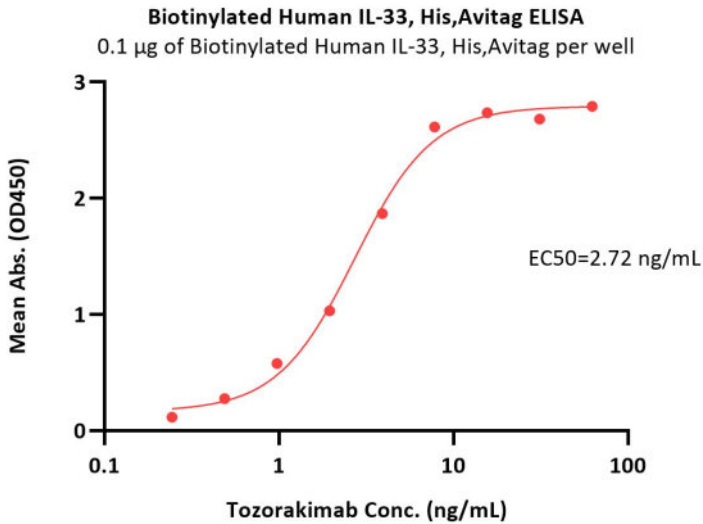


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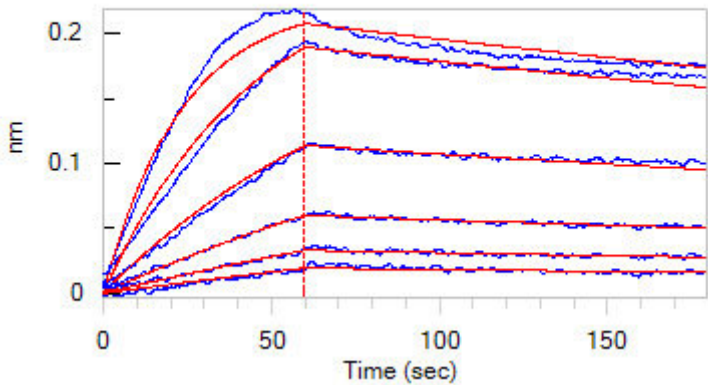


Immobilized Human IL-1RL1, Fc Tag (Cat. No. IL1-H5250) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-33, His,Avitag (Cat. No. IL3-H82H5) with a linear range of 0.1-2 ng/mL (QC tested).



Immobilized Biotinylated Human IL-33, His,Avitag (Cat. No. IL3-H82H5) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Tozorakimab with a linear range of 0.2-8 ng/mL (Routinely tested).

Bioactivity-BLI



Loaded Human IL-1RL1, Fc Tag (Cat. No. IL1-H5250) on Protein A Biosensor, can bind with Biotinylated Human IL-33, His,Avitag (Cat. No. IL3-H82H5) an affinity constant of 1.81 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Interleukin 33 (IL33) is known as C9orf26, DKFZp586H0523, DVS27, NF-HEV, NFEHEV, RP11-575C20.2, and is a cytokine belonging to the IL-1 superfamily. IL-33 induces helper T cells, mast cells, eosinophils and basophils to produce type 2 cytokines. IL-33 mediates its biological effects by interacting with the receptors ST2 (aka IL1RL1) and IL-1 Receptor Accessory Protein (IL1RAP), activating intracellular molecules in the NF-κB and MAP kinase signaling pathways that drive production of type 2 cytokines (e.g. IL-5 and IL-13) from polarized Th2 cells. In vivo, IL-33 induces the expression of IL-4, IL-5, and IL-13 and leads to severe pathological changes in mucosal organs.

