

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

Catalog # IL3-H82H5



BIOSYSTEMS  
**Acro**

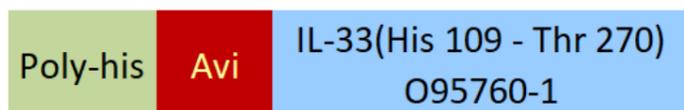
## Synonym

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

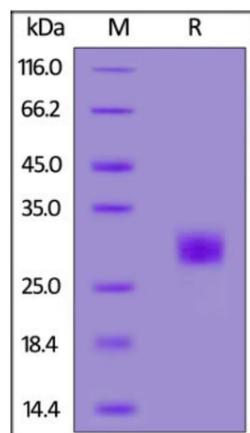
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

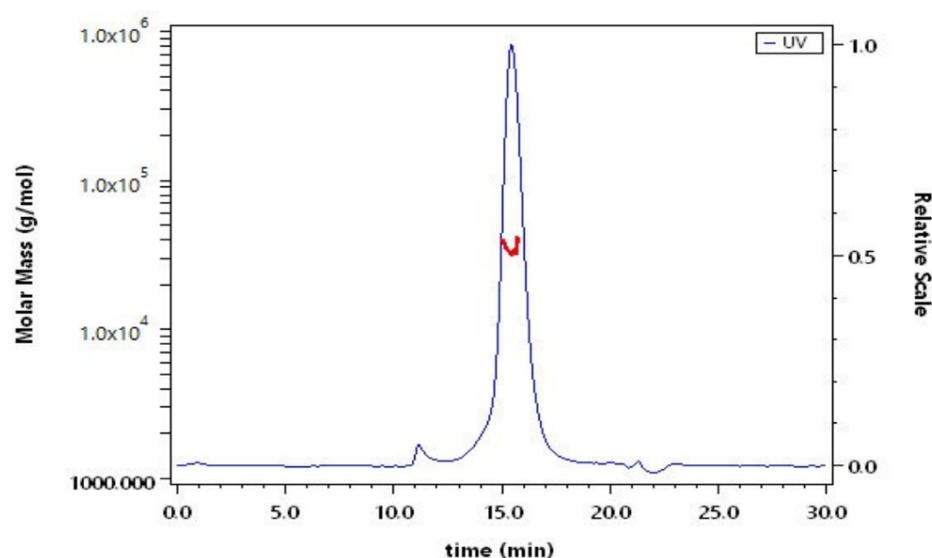
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## 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](#)

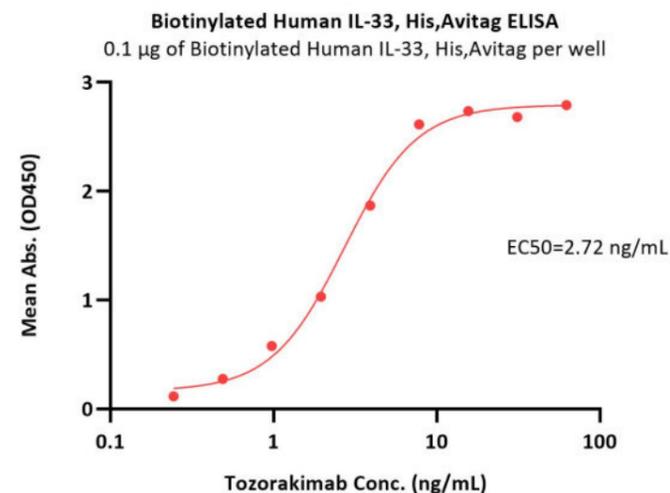
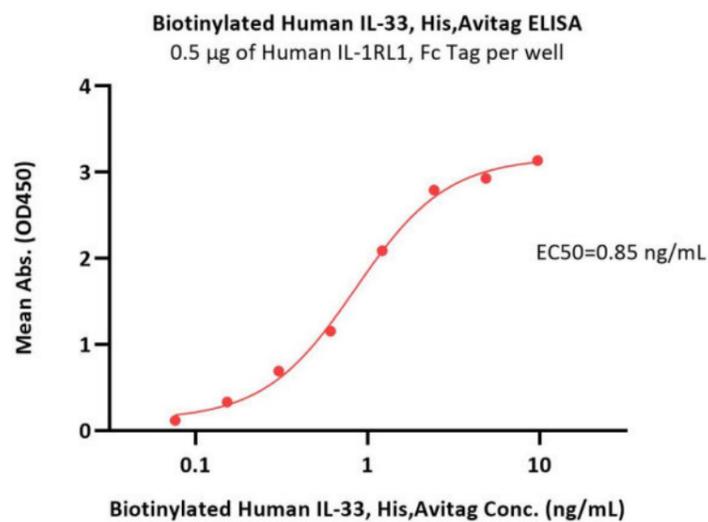
## Bioactivity-ELISA

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and more!



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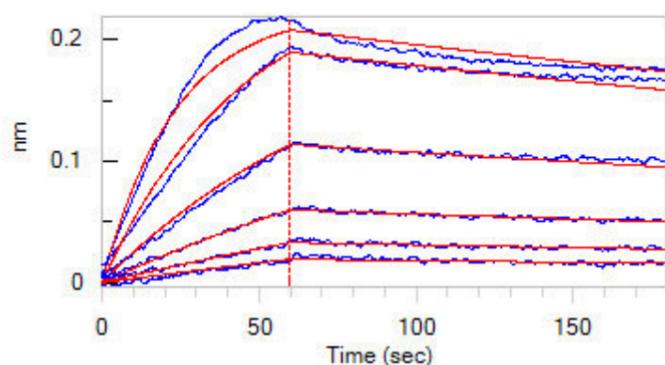
8/1/2025



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.

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