

**Synonym**

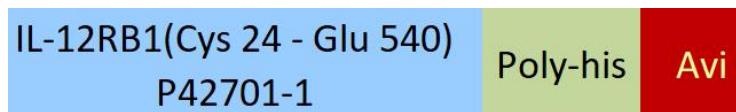
IL-12 R beta 1,IL12RB1,CD212,IL12R,IL12RB,IL-12RB1

**Source**

Biotinylated Human IL-12 R beta 1, His,Avitag(ILB-H52E1) is expressed from human 293 cells (HEK293). It contains AA Cys 24 - Glu 540 (Accession # [P42701-1](#) ).

Predicted N-terminus: Cys 24

**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 60.7 kDa. The protein migrates as 70-80 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.

**Endotoxin**

Less than 1.0 EU per µg by the LAL method.

**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**

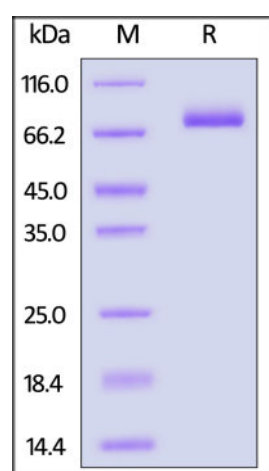
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

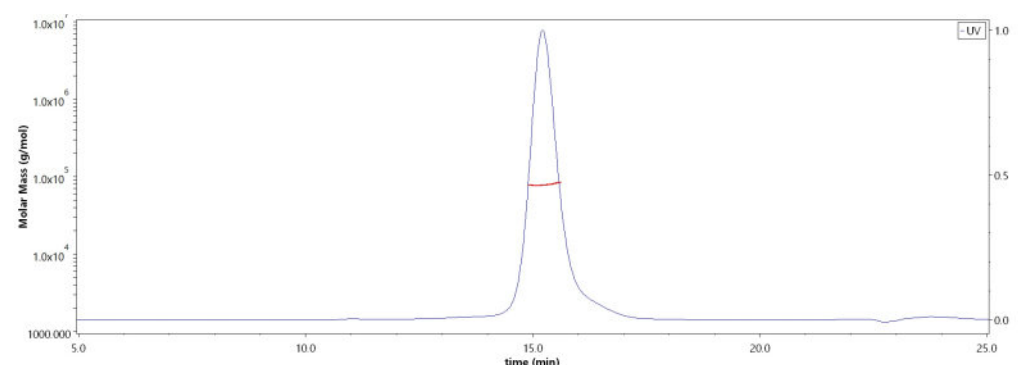
**SDS-PAGE**



Biotinylated Human IL-12 R beta 1, 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%.

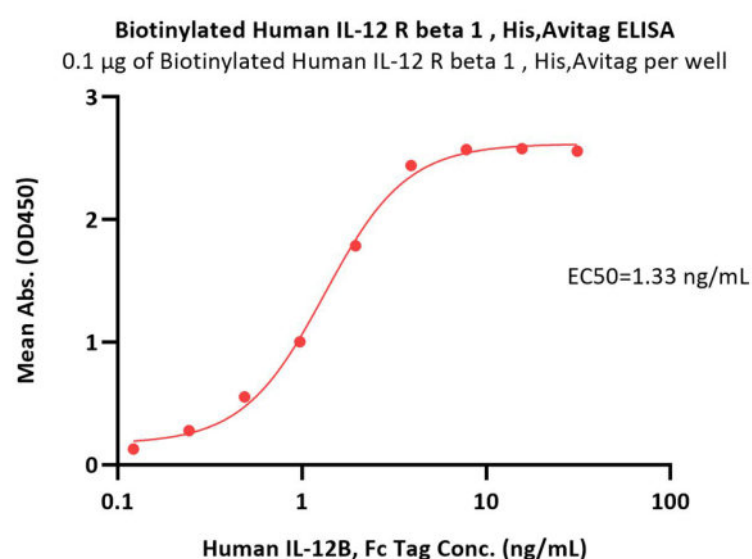
**Bioactivity-ELISA**

**SEC-MALS**



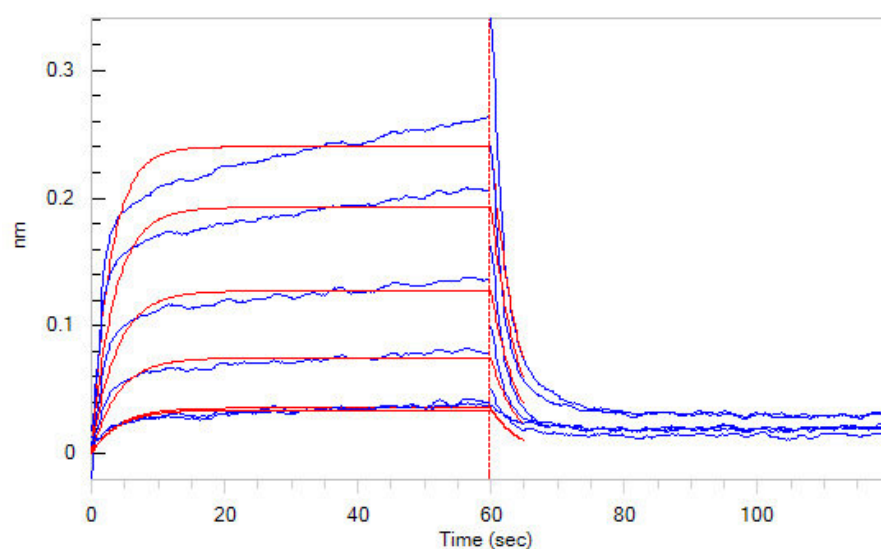
The purity of Biotinylated Human IL-12 R beta 1, His,Avitag (Cat. No. ILB-H52E1) is more than 90% and the molecular weight of this protein is around 70-85kDa verified by SEC-MALS.

[Report](#)



Immobilized Biotinylated Human IL-12 R beta 1 , His,Avitag (Cat. No. ILB-H52E1) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) pre-coated (0.5 µg/well) plate can bind Human IL-12B, Fc Tag (Cat. No. NK2-H5258) with a linear range of 0.1-4 ng/mL (QC tested).

### Bioactivity-BLI



Loaded Biotinylated Human IL-12 R beta 1, His,Avitag (Cat. No. ILB-H52E1) on SA Biosensor, can bind ActiveMax® Human IL-12, Tag Free (Cat. No. IL2-H5210) with an affinity constant of 1.7 µM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

### Background

The human IL-12 R subunit is a member of the cytokine receptor superfamily and the functional high-affinity IL-12R is composed of at least two beta-type cytokine receptor subunits, each independently exhibiting a low affinity for IL-12. IL-12 R beta 1 (Interleukin-12 receptor subunit beta-1) is also known as IL-12RB1, CD212. Functions as an interleukin receptor which binds interleukin-12 with low affinity and is involved in IL12 transduction. Associated with IL12RB2 it forms a functional, high affinity receptor for IL12. Associates also with IL23R to form the interleukin-23 receptor which functions in IL23 signal transduction probably through activation of the Jak-Stat signaling cascade.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.