

Synonym

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

Source

Biotinylated Human IL-12 R beta 1, Fc,Avitag(ILB-H82F7) is expressed from human 293 cells (HEK293). It contains AA Cys 24 - Glu 540 (Accession # [P42701-1](#)).

Predicted N-terminus: N/A

Molecular Characterization

IL-12RB1(Cys 24 - Glu 540) P42701-1	Fc(Pro 100 - Lys 330) P01857	Avi
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This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag™)

The protein has a calculated MW of 85.4 kDa. The protein migrates as 110 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.

Formulation

Lyophilized from 0.22 µm filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH 7.5 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

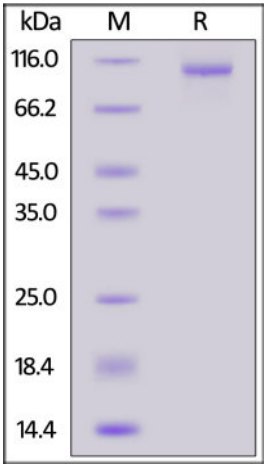
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

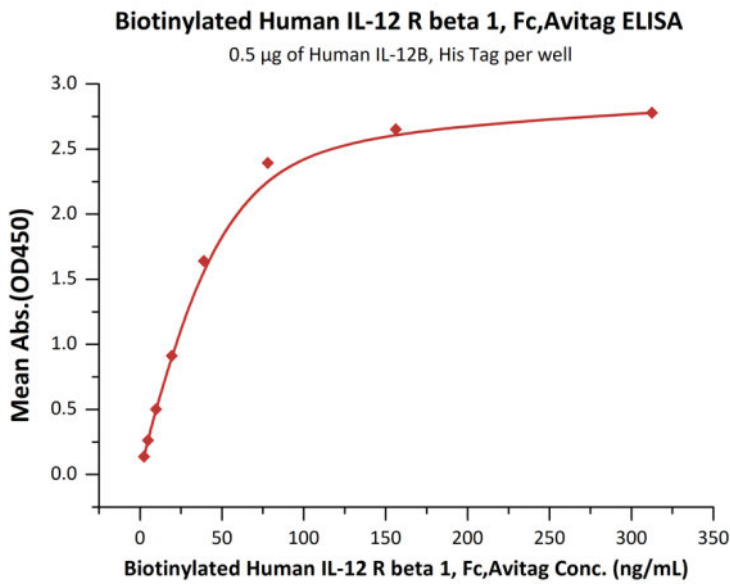
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

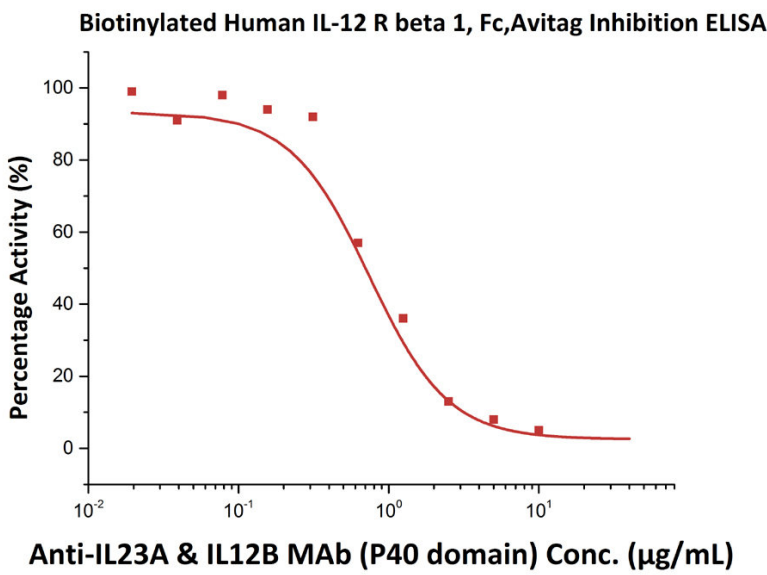


Biotinylated Human IL-12 R beta 1, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA

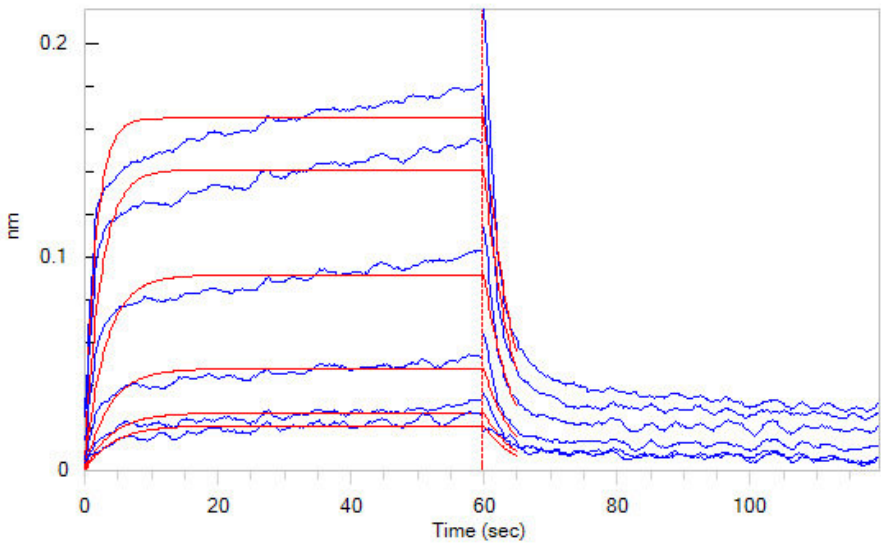


Immobilized Human IL-12B, His Tag (Cat. No. NK2-H52H7) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-12 R beta 1, Fc,Avitag (Cat. No. ILB-H82F7) with a linear range of 10-78 ng/mL (QC tested).



Immobilized Human IL-12B&IL-12A Heterodimer Protein, His Tag&Flag Tag (Cat. No. IL2-H4210) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IL-12 R beta 1, Fc,Avitag (Cat. No. ILB-H82F7) with a linear range of 10-78 ng/mL (Routinely tested).

Bioactivity-BLI



Loaded Biotinylated Human IL-12 R beta 1, Fc,Avitag (Cat. No. ILB-H82F7) 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 if you have any question on this product.