

Synonym

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

Source

Human IL-12 R beta 1, Fc Tag(ILB-H5255) is expressed from human 293 cells (HEK293). It contains AA Cys 24 - Glu 540 (Accession # [P42701-1](#) ).  
Predicted N-terminus: Cys 24

Molecular Characterization

IL-12RB1(Cys 24 - Glu 540) P42701-1	Fc(Pro 100 - Lys 330) P01857
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This protein carries a human IgG1 Fc tag at the C-terminus.

The protein has a calculated MW of 83.5 kDa. The protein migrates as 95-120 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

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 Tris with Glycine, Arginine and NaCl, pH7.5 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

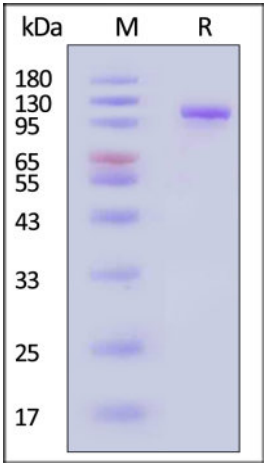
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*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.

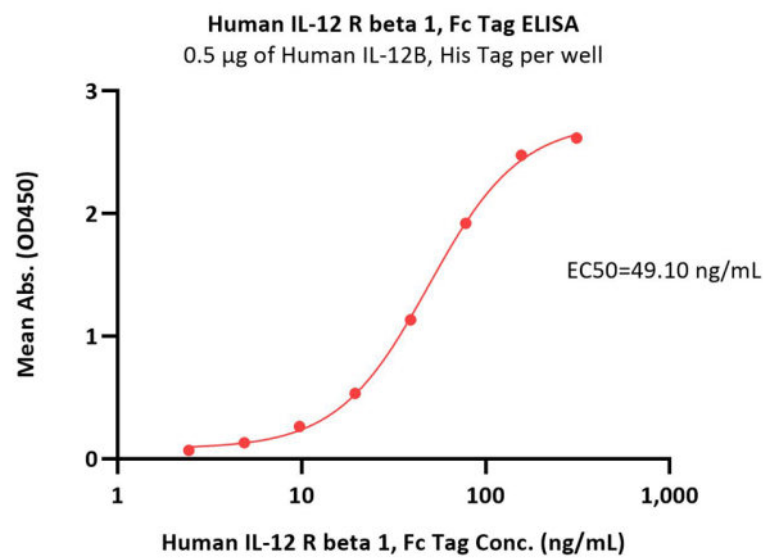
SDS-PAGE



Human IL-12 R beta 1, Fc Tag on SDS-PAGE under reducing (R) condition.

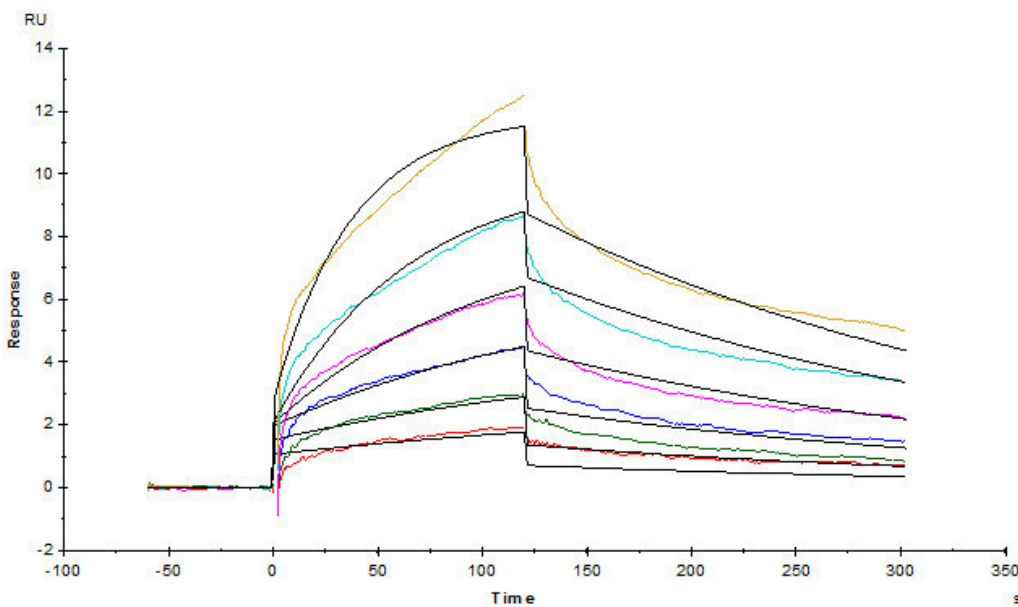
The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA



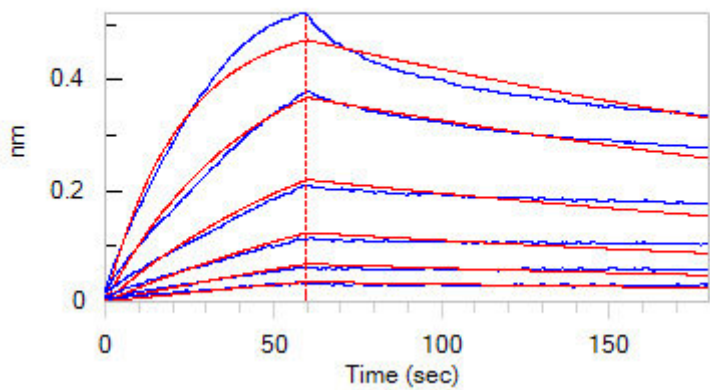
Immobilized Human IL-12B, His Tag (Cat. No. NK2-H52H7) at 5 µg/mL (100 µL/well) can bind Human IL-12 R beta 1, Fc Tag (Cat. No. ILB-H5255) with a linear range of 5-78 ng/mL (QC tested).

Bioactivity-SPR

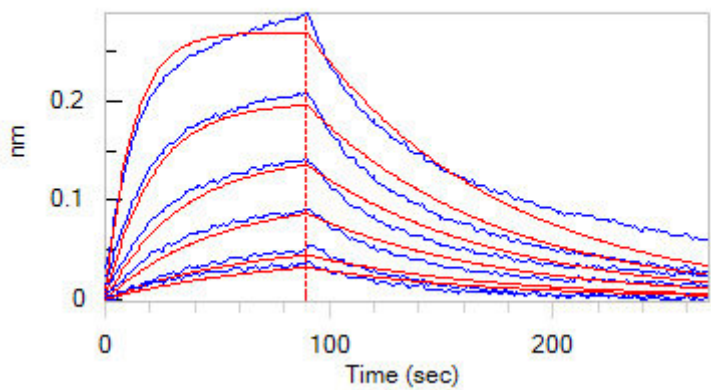


Human IL-12 R beta 1, Fc Tag (Cat. No. ILB-H5255) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human IL-12B&IL-12A Heterodimer Protein, His Tag&Flag Tag (Cat. No. IL2-H4210) with an affinity constant of 2.06 nM as determined in a SPR assay (Biacore T200) (Routinely tested).

Bioactivity-BLI



Loaded Human IL-12 R beta 1, Fc Tag (Cat. No. ILB-H5255) on Protein A Biosensor, can bind Human IL-12B, His Tag (Cat. No. NK2-H52H7) with an



Loaded Human IL-12B&IL-12A Heterodimer Protein, His Tag&Flag Tag (Cat. No. IL2-H4210) on HIS1K Biosensor, can bind Human IL-12 R beta 1, Fc Tag

affinity constant of 7.14 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

(Cat. No. ILB-H5255) with an affinity constant of 32.3 nM 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.