

### Synonym

IL13RA1,CD213A1,IL-13Ra,NR4,RP13-128O4.2,IL13Rα1

### Source

Biotinylated Human IL-13 R alpha 1, Fc,Avitag (IL1-H82F6) is expressed from human 293 cells (HEK293). It contains AA Gly 22 - Thr 343 (Accession #

[NP\\_001551.1](#)).

Predicted N-terminus: Gly 22

### Molecular Characterization

IL-13RA1(Gly 22 - Thr 343) NP_001551.1	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 65.0 kDa. The protein migrates as 70-90 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Biotinylation

*Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.*

### 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

>90% 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, pH7.5. Normally trehalose is added as protectant before lyophilization.

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

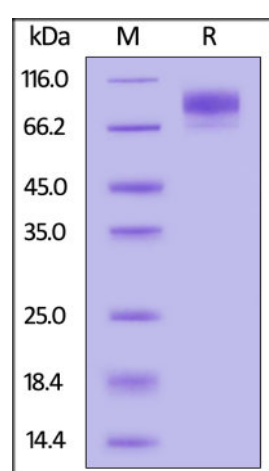
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

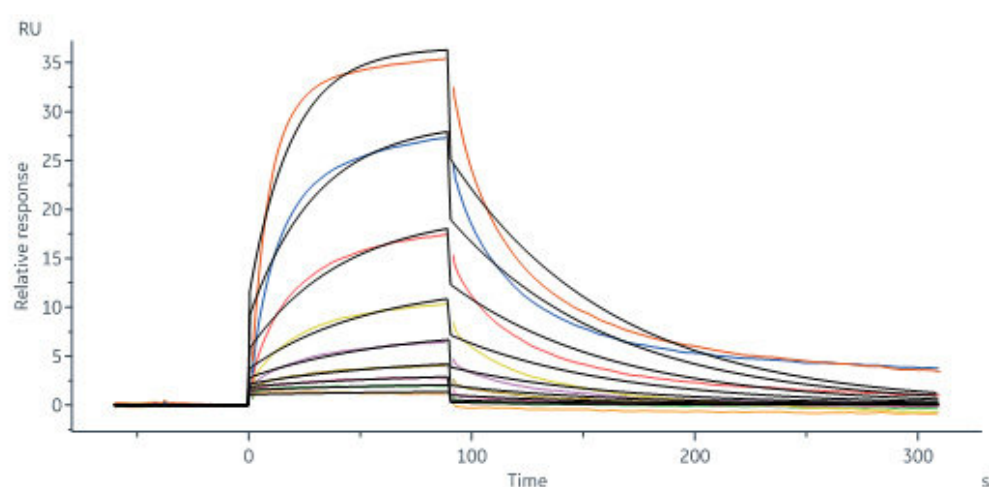
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

### SDS-PAGE



Biotinylated Human IL-13 R alpha 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 90%.

### Bioactivity-SPR



Biotinylated Human IL-13 R alpha 1, Fc,Avitag (Cat. No. IL1-H82F6) captured on CM5 chip via Anti-human IgG Fc antibodies surface can bind Human IL-13, His Tag (Cat. No. IL3-H52H4) with an affinity constant of 45.6 nM as determined in a SPR assay (Biacore 8K) (QC tested).

### Background

Interleukin 13 receptor, alpha 1 is also known as IL13RA1, NR4 and CD213A1 (cluster of differentiation 213A1), The IL13 R $\alpha$ 1 cDNA encodes a 427 amino acid (aa) residue precursor protein with a putative 21 aa residue signal peptide, a 324 aa residue extracellular domain, a 23 aa residue transmembrane region and a 59 aa residue cytoplasmic tail. Human and mouse IL13R $\alpha$ 1 share 76% aa sequence identity. IL13RA1 is a subunit of the interleukin 13 receptor. This subunit forms a receptor complex with IL4 receptor alpha, a subunit shared by IL13 and IL4 receptors. This subunit serves as a primary IL13-binding subunit of the IL13 receptor, and may also be a component of IL4 receptors. This protein has been shown to bind tyrosine kinase TYK2, and thus may mediate the signaling processes that lead to the activation of JAK1, STAT3 and STAT6 induced by IL13 and IL4.

### Clinical and Translational Updates

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