

Synonym

IL21,Za11,Interleukin-21

Source

Human IL-21, Fc Tag(IL1-H5253) is expressed from human 293 cells (HEK293). It contains AA Gln 30 - Ser 162 (Accession # [Q9HBE4-1](#)).

Predicted N-terminus: Gln 30

Molecular Characterization

| | |
|-------------------------------------|---------------------------------|
| IL-21(Gln 30 - Ser 162) Q9HBE4-1 | Fc(Pro 100 - Lys 330) P01857 |
|-------------------------------------|---------------------------------|

This protein carries a human IgG1 Fc tag at the C-terminus

The protein has a calculated MW of 41.9 kDa. The protein migrates as 45 kDa 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 50 mM Tris, 100 mM Glycine, 150 mM 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.

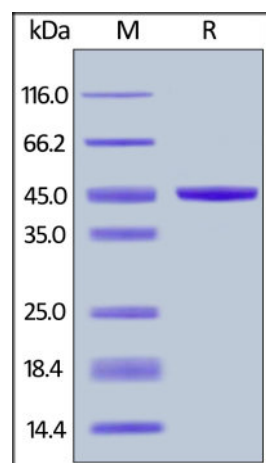
Storage

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

Please avoid repeated freeze-thaw cycles.

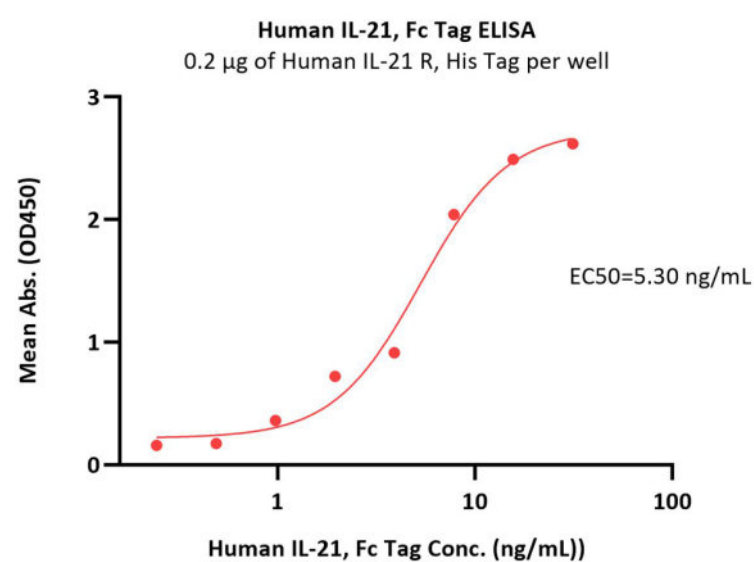
This product is stable after storage at:

- -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-21, 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%.

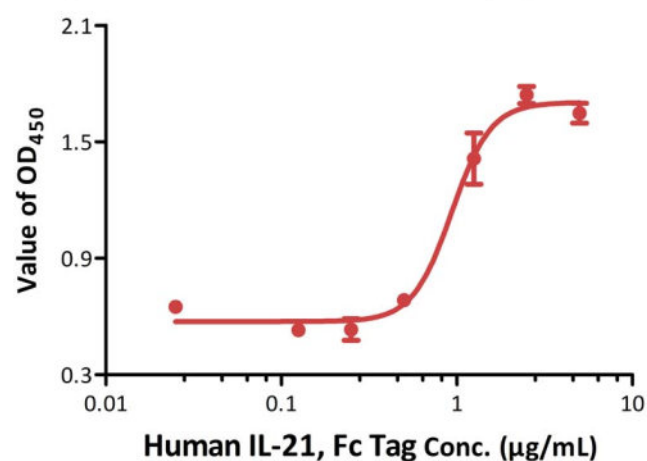
Bioactivity-ELISA



Immobilized Human IL-21 R, His Tag (Cat. No. ILR-H5226) at 2 µg/mL (100 µL/well) can bind Human IL-21, Fc Tag (Cat. No. IL1-H5253) with a linear range of 0.2-8 ng/mL (QC tested).

Bioactivity-Bioactivity CELL BASE

Human IL-21, Fc Tag stimulates secretion of IFN-gamma by NK-92 human natural killer lymphoma cells



Human IL-21, Fc Tag (Cat. No. IL1-H5253) stimulates secretion of IFN-gamma by NK-92 human natural killer lymphoma cells. The EC₅₀ for this effect is 0.94-1.34 µg/mL (Routinely tested).

Background

Interleukin-21 (IL-21) is a secreted protein which belongs to the IL-15 / IL-21 family. Interleukin-21 / IL-21 belongs to a family of cytokines that bind to a composite receptor consisting of a private receptor (IL21R) and the common cytokine receptor gamma chain (gamma(C)). Interleukin-21 / IL-21 impacts a number of cell types, including CD8⁺ memory T cells, NK cells and subsets of CD4 memory T cells. The IL-21R is widely distributed on lympho-haematopoietic cells. IL-21 is a pleiotropic cytokine produced by CD4⁺ T cells in response to antigenic stimulation. Its action generally enhances antigen-specific responses of immune cells. IL-21 promotes the anti-tumor activity of CD8⁺ T-cells and NK cells. IL-21 exerts its effect through binding to a specific type I cytokine receptor, IL-21R, which also contains the γ chain (γ c) found in other cytokine receptors including IL-2, IL-4, IL-7, IL-9 and IL-15. The IL-21/IL-21R interaction triggers a cascade of events which includes activation of the tyrosine kinases JAK1 and JAK3, followed by activation of the transcription factors STAT1 and STAT3.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.