



Synonym

IL21,Za11,Interleukin-21

Source

Mouse IL-21 Protein, His Tag(IL1-M52H3) is expressed from human 293 cells (HEK293). It contains AA Pro 25 - Ser 146 (Accession # [Q9ES17](#)).

Predicted N-terminus: Pro 25

Molecular Characterization

IL-21(Pro 25 - Ser 146)
Q9ES17 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 16.3 kDa. The protein migrates as 20 kDa and 23-28 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

>90% as determined by SDS-PAGE.

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

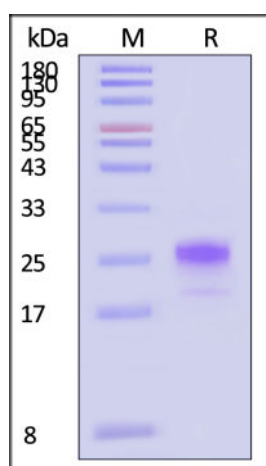
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



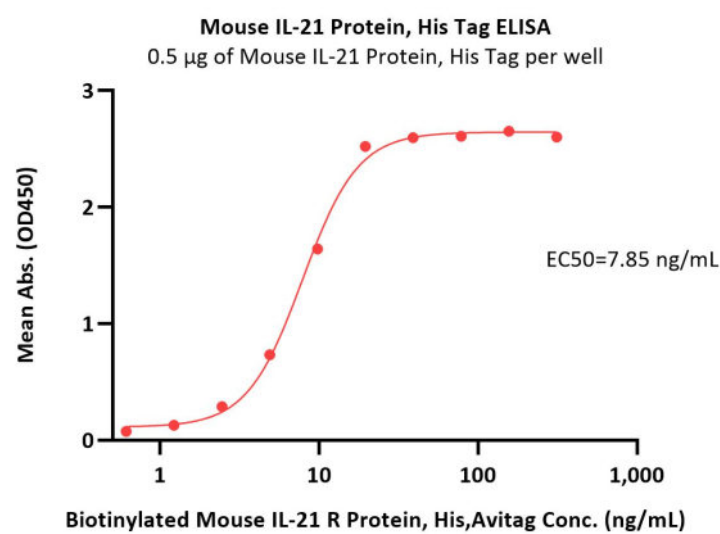
Mouse IL-21 Protein, His Tag on SDS-PAGE under reducing (R) condition.

The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA

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Immobilized Mouse IL-21 Protein, His Tag (Cat. No. IL1-M52H3) at 5 µg/mL (100 µL/well) can bind Biotinylated Mouse IL-21 R Protein, His,Avitag (Cat. No. ILR-M82E3) with a linear range of 0.3-20 ng/mL (QC 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

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