Recombinant Human IL-21 Protein

Catalog No.: RP01312

Sequence Information

Species
Human

Gene ID
59067

Swiss Prot
Q9HBE4-1

Tags
C-His

Synonyms
IL21,CVID11,IL-21,Za11

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
16.12 kDa

Observed MW
18 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

IL21 belongs to the IL-15/IL-21 family. It is a cytokine with immunoregulatory activity. Cytokines are proteinaceous signaling compounds that are major mediators of the immune response. They control many different cellular functions including proliferation, differentiation, and cell survival/apoptosis but are also involved in several pathophysiological processes including viral infections and autoimmune diseases. Cytokines are synthesized under various stimuli by a variety of cells of both the innate (monocytes, macrophages, dendritic cells) and adaptive (T- and B-cells) immune systems. IL21 is expressed in activated CD4-positive T-cells but not in CD8-positive T-cells, B-cells, or monocytes. It may promote the transition between innate and adaptive immunity. IL-21 has been tried as a therapy for alleviating allergic responses. It can significantly decrease pro-inflammatory cytokines produced by T cells in addition to decreasing IgE levels in a mouse model for rhinitis (nasal passage inflammation).

Basic Information

Description
Recombinant Human IL-21 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gln25-Ser155) of human IL-21 (Accession #NP_068575.1) fused with an 6×His tag at the C-terminus.

Activity
1.Measured by its binding ability in a functional ELISA. Immobilized Human IL21R at 2 μg/mL (100 μL/well) can bind Human IL21 with a linear range of 0.078-0.973 μg/mL.
2.Measured by its ability to induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED_{50} for this effect is 1.52-6.06 ng /mL, corresponding to a specific activity of 1.65×10^5~6.58×10^5 units/mg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

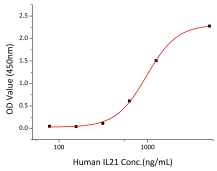
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

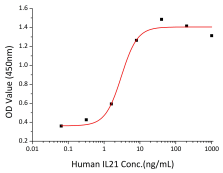
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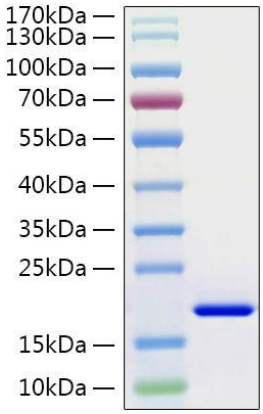
Validation Data



Immobilized Human IL21R at 2μg/mL (100 μL/well) can bind Human IL21 with a linear range of 0.078-0.973 μg/mL.



Recombinant Human IL-21 induce Interferon gamma secretion by human natural killer lymphoma NK-92 cells. The ED_{50} for this effect is 1.52-6.06 ng/mL, corresponding to a specific activity of 1.65×10^5~6.58×10^5 units/mg.



Recombinant Human IL-21 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.