Cynomolgus / Rhesus IL21R / IL-21R Protein (Fc Tag)

Catalog Number: 90315-C02H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

IL21R

Protein Construction:

A DNA sequence encoding the cynomolgus / rhesus IL21R (XP_005591578.1) (Met1-Pro236) was expressed with the Fc region of human IgG1 at the C-terminus. Cynomolgus and Rhesus IL21R sequences are identical.

Source: Cynomolgus, Rhesus

Expression Host: HEK293 Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE.

Bio Activity:

1. Measured by its binding ability in a functional ELISA. 2. Immobilized human IL21 (Cat:10584-HNAE) at 10 μg/mL (100 μL/well) can bind Cynomolgus IL21R-Fc. The EC_{50} of Cynomolgus IL21R-Fc is 0.11-0.25 μg/mL.

Endotoxin:

< 1.0 EU per μg protein as determined by the LAL method.

Predicted N terminal: Cys 20

Molecular Mass:

The recombinant cynomolgus / rhesus IL21R consists 458 amino acids and predicts a molecular mass of 52 kDa.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Stability & Storage:
Samples are stable for twelve months from date of receipt at -20℃ to -80℃.

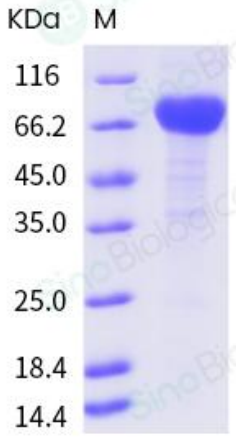
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Interleukin-21 receptor, also known as IL-21 receptor, IL-21R, Novel interleukin receptor, IL21R, and NILR, is a single-pass type I membrane protein that belongs to the type I cytokine receptor family and Type 4 subfamily. Interleukin-21 (IL-21) belongs to a family of cytokines that bind to a composite receptor consisting of a private receptor (IL-21R) and the common cytokine receptor gamma chain (gamma(C)). The IL-21R is discovered as a novel member of the class-I-cytokine-receptor family and is selectively expressed in lymphoid tissues. IL-21R shows strong sequence homologies to the interleukin-4 receptor alpha chain gene (IL-4RA). The WSXWS motif of IL-21R appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding. The box 1 motif of IL-21R is required for JAK interaction and/or activation. The IL-21R is widely distributed on lymphohematopoietic cells and IL21 impacts some cell types, including CD8+ memory T cells, NK cells, and subsets of CD4 memory T cells. Increased IL21 production is characteristic of certain autoimmune diseases and is likely to contribute to autoantibody production as well as pathological features of autoimmune disease. The critical role of IL21 in promoting humoral immune responses makes it an important focus of potential therapeutic interventions in conditions characterized by the overproduction of pathogenic autoantibodies.

References

1.Asao H, *et al.* (2001) Cutting edge: the common gamma-chain is an indispensable subunit of the IL-21 receptor complex. J Immunol. 167(1): 1-5. 2.Wu Z, *et al.* (2005) Interleukin-21 receptor gene induction in human T cells is mediated by T-cell receptor-induced Sp1 activity. Mol Cell Biol. 25(22): 9741-52. 3.De Totero D, *et al.* (2006) Interleukin-21 receptor (IL-21R) is up-regulated by CD40 triggering and mediates proapoptotic signals in chronic lymphocytic leukemia B cells. Blood. 107(9): 3708-15.