

Recombinant human IL-21 protein (Qk129)



Type: New, Stem cells

Available for purchase: Unit Size (µg): 25, 50, 100, 500, 1000

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Product Information

Interleukin 21 (IL-21) is a cytokine produced by natural killer (NK) cells and some T cells. IL-21 has broad immunological functions and can regulate NK cells, macrophages, and dendritic cells, as well as playing a role in promoting B cell and antibody responses. Recombinant IL-21 can be used in the differentiation of subsets T cells, NK cells, B cells and plasma cells.

Qkine recombinant human IL-21 is a pure and highly bioactive 15.3 kDa monomer.

Alternative protein names

IL21, Interleukin 21, IL-21, Za11, Interleukin-21, CVID11, IL-21

Molecular weight

15.3 kDa (monomer)

Protein Uniprot number

High purity human protein (Uniprot: Q9HBE4)

Species reactivity

- human
- species similarity:
- mouse - 86.1%
- rat - 87.6%

- bovine - 91.5%
- porcine - 97.7%

Product Information

- >98%, by SDS-PAGE quantitative densitometry
- Expressed in *E. coli*
- Animal origin-free (AOF) and carrier protein-free
- Manufactured in our Cambridge, UK laboratories
- Lyophilized from acetonitrile

Reconstitution instructions

- Resuspend in 10 mM HCl (Reconstitution solution A) at >50 µg/ml

Featured applications

- Stimulation of activated T cell proliferation
- Development, survival, and function of T cells
- Activation of T-cells and natural killer (NK) cells
- Differentiation of B cells into plasma cells
- Stimulation of activated B cell proliferation
- Development and formation of B cells

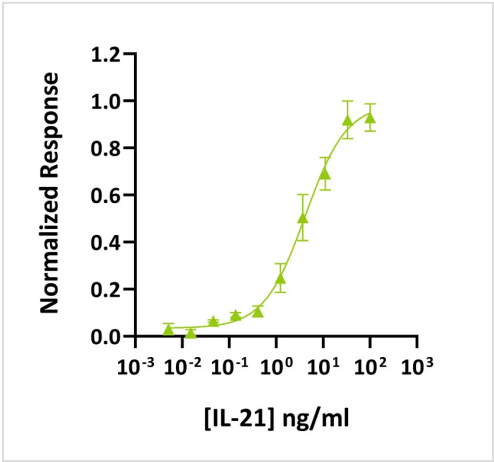
Further quality assays

- Mass spectrometry: single species with expected mass
- Recovery from stock vial: >95%
- Endotoxin: <0.05 EU/µg protein

Scientific Information

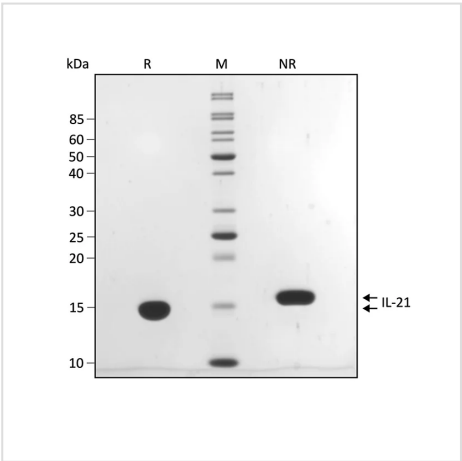
Bioactivity

Recombinant IL-21 activity was determined using a STAT3 luciferase reporter assay in HEK293 cells co-transfected with the IL-21 receptors (IL-21R and IL-2R γ). Transfected HEK293 cells were treated in triplicate with a serial dilution of IL-21 for 18 hours. Firefly activity was measured and normalized to the control Renilla luciferase activity. Data from Qk129 lot #204831. EC₅₀ = 4.17 ng/ml (0.27 nM).



Purity

Recombinant IL-21 migrates at approximately 15.3 kDa (monomer) in reduced (R) and non-reduced (NR) conditions. No contaminating protein bands are present. The purified recombinant protein (3 μ g) was resolved using 15% w/v SDS-PAGE in reduced (+ β -mercaptoethanol, R) and non-reduced (NR) conditions and stained with Coomassie Brilliant Blue R250. Data from Qk129 lot #204831.



Original product page: <https://qkine.com/product/recombinant-human-il-21-protein-qk129/>

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