

Store at
-20°C

Mouse IL-21 Recombinant Protein

Cell Signaling
TECHNOLOGY®

#95195

10 µg

New 11/20

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orders@cellsignal.comEntrez-Gene ID #60505
UniProt ID #Q9ES17

For Research Use Only. Not For Use In Diagnostic Procedures.

Background: IL-21 is produced by Th17, T follicular helper (Tfh), and NKT cells (1-3). Targets include T cells, B cells, NK cells, and dendritic cells (1-3,5). IL-21 induces proliferation and activation of NK cells, thereby upregulating IFN- γ production and cytotoxic activity (1,3,4). IL-21 increases proliferation and survival of CD40-primed B cells (1,2) and appears to have a significant role in plasma cell differentiation (2). IL-21 binds to a complex consisting of IL-21R α and the common γ chain, γ_c . IL-21 binding activates the Jak1/Jak3, Stat1, Stat3 and Stat5 pathways. IL-21 binding can also activate the MAP kinase and PI3K/Akt pathways.

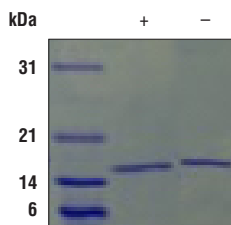
Molecular Weight: 15 kDa

Endotoxin: Endotoxin levels are ≤ 1 EU / 1 µg mL-21.

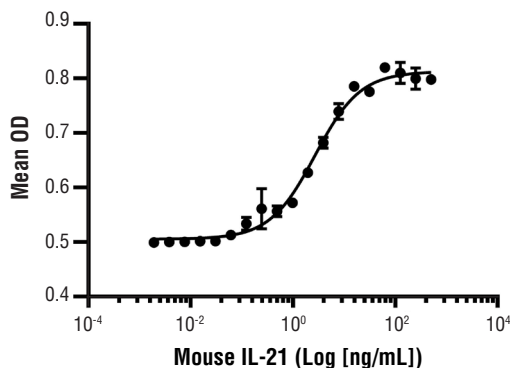
Purity: $\geq 95\%$ purity was determined by SDS-PAGE.

Source/Purification: Recombinant mouse IL-21 was expressed in *E. coli* and is supplied in a lyophilized form.

Bioactivity: The bioactivity of recombinant mL-21 was determined in a B9 cell proliferation assay. The ED₅₀ of each lot is ≤ 50 ng/ml.



The purity of Mouse IL-21 Recombinant Protein was determined by SDS-PAGE of 1 µg reduced (+) and non-reduced (-) recombinant mL-21 and staining with Coomassie Blue.



Serial dilutions of Mouse IL-21 Recombinant Protein were added to B9 cells. Cell proliferation was measured and the linear portion of the curve was used to calculate the ED₅₀.

Storage: Mouse IL-21 Recombinant Protein is supplied as lyophilized material that is very stable at -20°C. It is recommended to reconstitute with sterile water at a concentration of 0.1 mg/ml which can be further diluted in aqueous solutions as needed. Addition of a carrier protein (0.1% HSA or BSA) is recommended for long-term storage.

Background References:

- (1) Parrish-Novak, J. et al. (2000) *Nature* 408, 57-63.
- (2) Parrish-Novak, J. et al. (2002) *J Leukoc Biol* 72, 856-63.
- (3) Konforte, D. et al. (2009) *J Immunol* 182, 1781-7.
- (4) Strengell, M. et al. (2002) *J Immunol* 169, 3600-5.
- (5) Davis, I.D. et al. (2007) *Clin Cancer Res* 13, 6926-32.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.