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Mouse IL-21 Recombinant Protein Carrier-Free

Catalog Number: 34-8211
Also Known As:Interleukin-21, IL21
RUO: For Research Use Only

Product Information

Contents: Mouse IL-21 Recombinant Protein Carrier-Free
REF Catalog Number: 34-8211
Concentration: 0.5 mg/ml
Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in sterile envrioment.
Source: E. coli expressed amino acids Pro25-Ser146 of mature mouse IL-21 (accession # NM_021782).
Molecular Mass: The protein is not methionylated at the N-terminus and has a predicted molecular mass of 14,373. The non-reduced or DTT reduced protein migrates as a 15 kDa polypeptide on SDS-PAGE.
Purity: Greater than 98% as determined by SDS-PAGE.
Endotoxin Level: Less than 0.01ng/ug cytokine as determined by the LAL assay.
Bioactivity: Measured by its ability to induce proliferation of B9 cells. The ED50 for this effect is typically 300 pg/mL.

Formulation: Sterile liquid; 20 mM phosphate, 0.6 M NaCl, pH 7.0
Temperature Limitation: Store at less than or equal to -70°C.
LOT Batch Code: Refer to Vial
Use By: Refer to Vial

Description

Mouse Interleukin-21 (IL-21) is a 146-amino acid protein with 57% identity to the human gene. It contains a 24-amino acid signal peptide and a 4-helix-bundle cytokine domain homologous to IL-2, IL-4 and IL-15. IL-21 stimulates B cell proliferation in an anti-CD40 dependent manner but inhibits B cell proliferation stimulated by IL-4 plus anti-IgM. IL-21 is induced by IL-6 in activated T cells, a process that is dependent on STAT3 but not on ROR-gamma. IL-21 induces Th17 differentiation and suppresses FOXP3 expression, which requires STAT3 and ROR-gamma.

Applications Reported

Mouse IL-21 Recombinant Protein Carrier-Free has been reported for use in cytokine bioassays.

Applications Tested

This recombinant IL-21 has been tested in bioassay for its ability to induce proliferation of B9 cells. The ED50 for this effect is typically below 1 ng/mL, corresponding to a specific activity of greater than 1.0 x 10E6 U/mg.

References

Korn, T. et al. 2007. Nature. 448:484-487

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