

# Mouse IL-21 Recombinant Protein

Catalog Number: 14-8211 Also Known As:Interleukin-21, IL21 RUO: For Research Use Only

## **Product Information**

Contents: Mouse IL-21 Recombinant Protein

REF Catalog Number: 14-8211

Concentration: 100 ug/ml

Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment

**Source:** E. coli expressed amino acids Pro25-Ser146 of mature mouse IL-21 (accession # NM\_021782).

**Molecular Mass:** The DTT reduced protein migrates as a 15 kDa polypeptide on SDS-PAGE. The non-reduced protein migrates as a 15 kDa polypeptide.

**Purity:** Greater than 98%, as determined by SDS-PAGE **Endotoxin Level:** Less than 0.01 ng/ug cytokine as determined by the LAL assay.

**Bioactivity:** Measured by dose-dependent induction of proliferation of B9 cell line. The ED50 is typically 300 pg/ml, corresponding to a specific activity of 3 x 10E6 Units/mg.

**Formulation:** Sterile liquid; 20 mM phosphate, 0.6 M NaCl with 1% BSA, 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**

Recombinant mouse IL-21 is biologically active and has been reported for use in ELISA and bioassay.

## **Applications Tested**

This IL-21 protein has been tested by bioassay, yielding an ED50 of 300 pg/ml, corresponding to a specific activity of approximately 3x10E6 Units/mg.

## References

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

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