

RPCB0956

## Product Information

|                     |          |                    |       |              |      |
|---------------------|----------|--------------------|-------|--------------|------|
| <b>Product SKU:</b> | RPCB0956 | <b>Gene ID:</b>    | 60505 | <b>Size:</b> | 10µg |
| <b>Tag:</b>         | C-hFC    | <b>Reactivity:</b> | Mouse |              |      |

## Additional Information

|                         |                    |                   |        |
|-------------------------|--------------------|-------------------|--------|
| <b>Expression Host:</b> | E. coli            | <b>Swissprot:</b> | Q9ES17 |
| <b>Purity:</b>          | > 95% by SDS-PAGE. |                   |        |

## Protein Information

**Background:** Interleukin-21 (IL-21) is an approximately 14 kDa four-helix-bundle cytokine in the family of cytokines that utilize the common gamma chain ( gamma c) as a receptor subunit. gamma c is also a subunit of the receptors for IL-2, IL-4, IL-7, IL-9, and IL-15 . IL-21 is produced by activated T follicular helper cells (Tfh), Th17 cells, and NKT cells. It exerts its biological effects through a heterodimeric receptor complex of gamma c and the IL-21-specific IL-21 R. Tfh-derived IL-21 plays an important role in the development of humoral immunity through its autocrine effects on the Tfh cell and paracrine effects on immunoglobulin affinity maturation, plasma cell differentiation, and B cell memory responses . It is also required for the migration of dendritic cells to draining lymph nodes . IL-21 regulates several aspects of T cell function. It co-stimulates the activation, proliferation, and survival of CD8+ T cells and NKT cells and promotes Th17 cell polarization . It blocks the generation of regulatory T cells and their suppressive effects on CD4+ T cells. IL-21 R engagement enhances the cytolytic activity and IFN-gamma production of activated NK cells but limits the expansion of resting NK cells . In addition, IL-21 suppresses cutaneous hypersensitivity reactions by limiting allergen-specific IgE production and mast cell degranulation . Dysregulation of the IL-21/IL-21 R system contributes to the development of multiple immunological disorders . The mouse IL-21 precursor contains a predicted 17 amino acid (aa) signal sequence and a 129 aa mature chain.

Mature mouse IL-21 shares 66%, 59%, 58%, and 88% aa sequence identity with mature canine, human, rabbit, and rat IL-21, respectively.

- Protein Description:** High quality, high purity and low endotoxin recombinant Recombinant Mouse IL-21 Protein , tested reactivity in HEK293 cells and has been validated in SDS-PAGE.100% guaranteed.
- Endotoxin:** <0.1EU/ug of the protein by LAL method.
- Formulation:** Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.
- Storage:** Store at -20°C.Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.