

## Human recombinant IL-21 protein, GMP

Catalog Number: PROTQ9HBE4-6

### Overview

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| Product Name | Human recombinant IL-21 protein, GMP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Description  | Interleukin-21 (IL-21) belongs to the IL-15/IL-21 family, which exerts pleiotropic immune regulations. IL-21 produced primarily by natural killer T (NKT) cells, T follicular helper (TFH) cells and TH17 cells. As a pleiotropic cytokine, IL-21 has been shown to regulate both innate and humoral immunity. It has potent inhibitory activity towards the activation and maturation of granulocyte-macrophage colony-stimulating factor (GM-CSF)-induced dendritic cells (DCs). In B cells, IL-21 has a major role in the development of immunoglobulin responses. In T cells, it is required to facilitate the functional differentiation of several CD4+ T cell subsets. In addition, the ability of IL-21 to enhance the cytotoxic activity of both CD8+ T cells and NK cells makes it as a potential antitumor agent. |
| Size         | 100ug,1mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Tag          | His Tag (C-term)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Form         | Lyophilized                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Source       | Escherichia coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Formulation  | Lyophilized from a 0.2 um filtered solution of PBS, pH 8.0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

### Storage

Lyophilized protein should be stored at -20°C for 1 year. Upon reconstitution, store at 2°C to 8°C for up to 1 week. Further dilute in a buffer containing a carrier protein or stabilizer (e.g. 0.1% BSA, 10%FBS, 5%HSA or 5% trehalose solution), protein aliquots should be stored at -20°C or -80°C for 3-6 months. Avoid repeated freeze/thaw cycles.

### Purity

>95% as determined by SDS-PAGE analysis.

### Molecular weight

The protein has a calculated MW of 16.2 kDa. The protein migrates as 20 kDa under reducing condition (SDS-PAGE analysis).

### Activity

Measure by its ability to enhance IFN gamma secretion in NK-92 cells. The ED<sub>50</sub> for this effect is <10 ng/mL.

### Endotoxin

<0.05 EU per 1 ug of the protein by the LAL method.

### Amino Acid Sequence

MQDRHMIRMRLIDIVDQLKNYVNDLVPEFLPAPEDVETNCEWSAFSCFQKAQLKSANTGNNERIINVSIIKKLKRKPPSTNAGRQKHRLTCPSCDSYE  
KKPPKEFLERFKSLLQKMIHQHLSSRTHGSEDS with polyhistidine tag at the C-terminus.

### Reconstitution

Centrifuge at 3000 rpm for 5 mins before opening. It is recommended to reconstitute the lyophilized protein in sterile H<sub>2</sub>O to a concentration not less than 0.5 mg/mL and incubate the stock solution at RT for at least 20 min to ensure sufficient re-dissolved.

## Usage

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