

# CHASELECTION

## Recombinant Human Interleukin-21/IL-21

Catalog Number: CYG025F0XXX/CY025F0XXX

**Synonym:** Interleukin-21, Za11

**Source:** E.coli

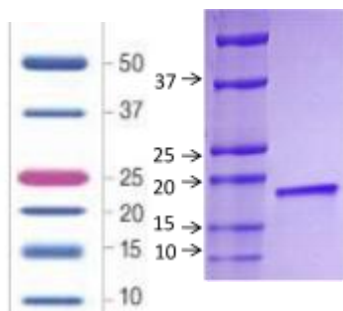
**Structure:** Gln32-Ser162(No. : NP\_068575)

**Molecular Weight:** 15.4 kDa

**Purity:**

≥95 % as determined by SDS-PAGE & HPLC.

**SDS-PAGE:**



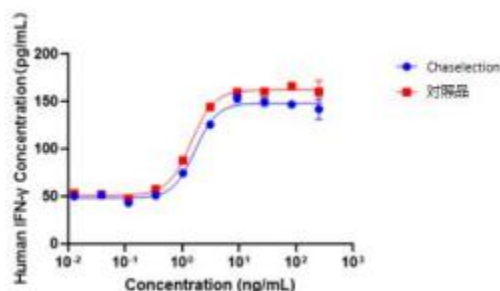
SDS-PAGE showed a protein molecular weight of approximately 15.4kDa

**Endotoxin:** <0.1 EU/μg

**Formulation:**

PBS, Trehalose, mannitol, pH 7.4

**Bioactivity**



Measured by its ability to enhance IFN-γ secretion in NK-92 human natural killer lymphoma cells. The ED<sub>50</sub> is ≤2 ng/mL, corresponding to a specific activity of ≥5 × 10<sup>5</sup> units/mg.

**Reconstitution:**

1. Before opening, please briefly centrifuge the contents to the bottom;
2. It is recommended to initially dissolve in sterile deionized water to an appropriate concentration (recommended concentration is 0.2-1mg/ml);
3. If further dilution is required, it is recommended to dilute the solution with a solution containing carrier proteins (such as 0.1% BSA, 10% FBS, and 5% HSA).

**Shipping & Storage:**

The product is shipped with blue ice.

If long-term storage is required, this product should be stored at ≤ -20 °C

Please avoid repeated freeze-thaw cycles.

1. Dry powder can be stored at ≤ -20 °C for at least 24 months;
2. After reconstitution, it can be stored for 1 month under sterile conditions at 2-8 °C ;
3. After reconstitution, it can be stored for 12 months under sterile conditions at -20~-70°C.

**Introduction**

IL-21 is a pleiotropic cytokine produced by CD<sup>4+</sup> T cells in response to antigen stimulation, typically enhancing the antigen-specific response of immune cells. IL-21 exerts its function by binding to a specific type I cytokine receptor, IL-21R, which is also found in other cytokine receptors such as IL-2, IL-4, IL-7, IL-9, and IL-15 receptors γ Chain (γc). The interaction between IL-21/IL-21R triggers a series of events, including activation of tyrosine kinases JAK1 and JAK3, followed by activation of transcription factors STAT1 and STAT3. The biological effects of IL-21 include inducing B cells stimulated by T cells to differentiate into plasma cells and memory B cells, stimulating IgG production with IL-4, and inducing apoptosis of immature B cells and stimulated B cells in the absence of T cell signaling. In addition, IL-21 also has the ability to promote CD<sup>8+</sup> T cells and NK cells.