

# Recombinant Human IL21

Cat No:HR2R1578

For research use only

## Overview

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| Quantity           | 10 ?g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Gene Symbol        | IL21                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Gene ID            | 59067                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Accession          | Q9HBE4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Alternative Name   | IL-21, Za11<br>Recombinant Human Interleukin-21 (IL21)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Species            | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Source             | E. coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Description        | IL-21 stimulates proliferation of B cell stimulated by crosslinking of the CD40 antigen. It inhibits proliferation stimulated by IL-4 plus anti-IgM. IL-21 augments stimulation of the proliferation of naive CD45RA(+) but not memory CD45R0(+) T cells mediated by engagement of CD3. IL-21 stimulates the proliferation of bone marrow progenitor cells and the expression of the natural killer cell marker CD56 in the presence of IL-15. The Interleukin-21 receptor is closely related to human IL-2 beta receptor. The receptor contains a WSXWS motif in the extracellular region, typical of type 1 cytokine receptors. The receptor is expressed on natural killer cells, T cells, and B cell line. The functional signaling complex activates Janus kinases JAK1, JAK3, and the STAT proteins STAT1, and STAT3. |
| Functions          | The ED(50) was determined by the dose-dependent proliferation of HuT-78 Cells and was found to be <0.05ng/mL.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Formulation        | Recombinant Interleukin-21 was lyophilized from a 0.2 ?m filtered PBS solution pH 7.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Solubility         | A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Appearance         | Lyophilized Powder                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Molecular Weight   | 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Purity             | >95% as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Concentration      | <1.0 EU/?g of recombinant protein as determined by the LAL method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Shipping Condition | Ambient Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Storage Condition  | The lyophilized protein is stable for at least one year from date of receipt at -70°C. Upon reconstitution, this cytokine can be stored in working aliquots at 2? - 8°C for one month, or at -20°C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |