



# Recombinant Protein Technical Manual

## Recombinant Human Interleukin-21/IL-21 Protein (Active) RPES1853

### Product Data:

**Product SKU:** RPES1853

**Size:** 5µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** Q9HBE4

### Protein Information:

**Molecular Mass:** 15.6 kDa

**AP Molecular Mass:** 17 kDa

#### Tag:

**Bio-activity:** 1. Measured by its ability to bind human IL-21R in a functional ELISA. 2. Measured by its ability to induce Interferon-gamma secretion by human natural killer lymphoma NK-92 cells. The ED50 for this effect is typically 0.4-2 ng/ml.

**Purity:** > 92 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM NaAc, 150mM NaCl, pH 5.5

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** Interleukin-21; IL-21; Za11; IL21

## Immunogen Information:

**Sequence:** Gln 23-Ser 155

## Background:

IL21 belongs to the IL5/IL-21 family. It is a cytokine with immunoregulatory activity. Cytokines are proteinaceous signaling compounds that are major mediators of the immune response. They control many different cellular functions including proliferation, differentiation and cell survival/apoptosis but are also involved in several pathophysiological processes including viral infections and autoimmune diseases. Cytokines are synthesized under various stimuli by a variety of cells of both the innate (monocytes, macrophages, dendritic cells) and adaptive (T- and B-cells) immune systems. IL21 is expressed in activated CD4-positive T-cells but not in CD8-positive T-cells, B-cells, or monocytes. It may promote the transition between innate and adaptive immunity. IL-21 has been tried as therapy for alleviating allergic responses. It can significantly decrease pro-inflammatory cytokines produced by T cells in addition to decreasing IgE levels in a mouse model for rhinitis (nasal passage inflammation).