



# Recombinant Protein Technical Manual

**Recombinant Rat Interleukin7F/IL7F Protein (His Tag)(Active)**  
RPES3416

## Product Data:

**Product SKU:** RPES3416

**Size:** 20µg

**Species:** Rat

**Expression host:** Baculovirus-Insect Cells

**Uniprot:** NP\_001015011.1

## Protein Information:

**Molecular Mass:** 16.4 kDa

**AP Molecular Mass:**

**Tag:** C-His

**Bio-activity:** 1. Measured by its binding ability in a functional ELISA. 2. Immobilized rat IL17F-His at 10 µg/mL (100 µL/well) can bind Rat IL17RA-Fc3 . The EC50 of Rat IL17RA-Fc3 is 0.28-0.66 µg/mL.

**Purity:** > 90 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg protein as determined by the LAL method.

**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 20 mM Tris, 500 mM NaCl, 10 % glycerol, pH 7.4

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

**Application:** Functional ELISA

**Synonyms:** IL17F;IL7F

## Immunogen Information:

**Sequence:** Met1-Ala153

## Background:

Interleukin7F (IL7F) is a cytokine that shares sequence similarity with IL17. The most notable role of IL7 is its involvement in inducing and mediating proinflammatory responses. IL7 is commonly associated with allergic responses. IL7F is expressed by activated T cells, and was expressed only in activated CD4+ T cells and activated monocytes. IL7F has been shown to stimulate the production of several other cytokines, including IL6 and IL8. This cytokine is also found to inhibit the angiogenesis of endothelial cells and induce endothelial cells to produce IL2, TGF $\beta$ 1/TGF $\beta$ , and monocyte chemoattractant protein. Recombinant human IL7F did not stimulate the proliferation of hematopoietic progenitors or the migration of mature leukocytes. However, it markedly inhibited the angiogenesis of human endothelial cells and induced endothelial cells to produce IL-2, TGF- $\beta$ , and monocyte chemoattractant protein. IL7F stimulates the production of other cytokines and granulocyte colony-stimulating factor, and can regulate cartilage matrix turnover. IL7F stimulates PBMC and T-cell proliferation. It also functions in inhibiting angiogenesis. By similarity, IL7F plays a role in the induction of neutrophilia in the lungs and in the exacerbation of antigen-induced pulmonary allergic inflammation.