



# Recombinant Protein Technical Manual

## Recombinant Human Interleukin7A/IL7A Protein (Yeast, His Tag)(Active) RPES0391

### Product Data:

**Product SKU:** RPES0391

**Size:** 50µg

**Species:** Human

**Expression host:** Yeast

**Uniprot:** Q16552

### Protein Information:

**Molecular Mass:** 17.3 kDa

**AP Molecular Mass:** 17 kDa

**Tag:** N-His

**Bio-activity:** Measured by its binding ability in a functional ELISA. 1. Immobilized human His-IL17A at 10µg/mL (100µL/well) can bind biotinylated human IL17Ra-His, the EC50 of biotinylated human IL17Ra-His is 0.03-0.2µg/mL. 2. Measured by its ability to induce IL-6 secretion by HFF human foreskin fibroblast cells. The EC50 for this effect is typically 5-25 ng/ml.

**Purity:** > 95 % 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 PBS, pH 7.4

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

**Application:** Functional ELISA

**Synonyms:** Interleukin7A; IL7; IL7A; Cytotoxic T-Lymphocyte-Associated Antigen 8; CTLA-8; IL17A; CTLA8; IL17

## Immunogen Information:

**Sequence:** Gly24-Ala155

## Background:

IL17, also known as IL17a, is a cytokine belongs to the IL7 family. 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. The IL7 family of cytokines includes six members, IL7/IL7A, IL7B, IL7C, IL7D, IL7E/IL-25, and IL7F, which are produced by multiple cell types. IL7 regulates the activities of NF-kappaB and mitogen-activated protein kinases. This cytokine can stimulate the expression of IL6 and cyclooxygenase-2 (PTGS2/COX-2), as well as enhance the production of nitric oxide (NO). High levels of IL7 are associated with several chronic inflammatory diseases including rheumatoid arthritis, psoriasis and multiple sclerosis.