

## Recombinant Human IL7RA/CD127 Protein (His Tag)

**Catalog Number:** PKSH031327

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

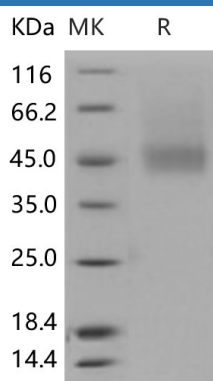
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human IL7RA/CD127 protein Met 1-Gly 236, with an C-terminal His
<b>Calculated MW</b>	26.3 kDa
<b>Observed MW</b>	45-50 kDa
<b>Accession</b>	NP_002176.2
<b>Bio-activity</b>	Measured by its ability to bind biotinylated mouse TSLP-his in functional ELISA.

### Properties

<b>Purity</b>	> 92 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 92 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

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Interleukin 7 Receptor alpha (IL-7RA), also known as CD127, is a 75 kDa hematopoietin receptor superfamily member that plays an important role in lymphocyte differentiation, proliferation, and survival. IL-7RA signaling is essential for T-cell development and regulation of naive and memory T-cell homeostasis. Studies from both pathogenic and controlled HIV infection indicate that the containment of immune activation and preservation of CD127 expression are critical to the stability of CD4(+) T cells in infection. A better understanding of the factors regulating CD127 expression in HIV disease, particularly on T(CM) cells, might unveil new approaches exploiting the IL-7/IL-7R receptor pathway to restore T cell homeostasis and promote immune reconstitution in HIV infection. Factors relevant to HIV infection that could potentially decrease CD127 expression on human CD8(+) T cells. CD127 down-regulation may be an important contributor to HIV-associated T-cell dysfunction. In addition to IL-7, IL-7RA also associates with TSLPR to form the functional receptor for thymic stromal lymphopoietin (TSLP) which indirectly regulates T cell development by modulating dendritic cell activation. Mutations in the human IL-7RA gene cause a type of severe combined immunodeficiency in which the major deficiencies are in T cell development, whereas B and NK cells are relatively normal in number. Soluble CD127 (sCD127) appears to play an important role in the immunopathogenesis of several chronic infections, multiple sclerosis, and various cancers.