

Recombinant Human IL7R/IL-7R/CD127 Protein (His Tag)

Catalog Number: PDEH100948

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

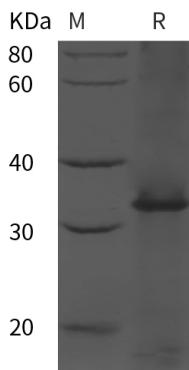
Description

| | |
|---------------|--|
| Species | Human |
| Source | E.coli-derived Human IL7R protein Glu21-Asp239, with an N-terminal His |
| Calculated MW | 24.0 kDa |
| Observed MW | 25 kDa |
| Accession | P16871 |
| Bio-activity | Not validated for activity |

Properties

| | |
|----------------|---|
| Purity | > 95% as determined by reducing SDS-PAGE. |
| Endotoxin | < 10 EU/mg of the protein as determined by the LAL method |
| Storage | 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. |
| Shipping | This product is provided as lyophilized powder which is shipped with ice packs. |
| Formulation | Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol. |
| Reconstitution | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis. |

Data



SDS-PAGE analysis of Human IL7R/IL-7R/CD127 proteins, 2 µg/lane of Recombinant Human IL7R/IL-7R/CD127 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 25 kDa.

Background

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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.

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