

Recombinant Human IL7R Protein(Fc Tag)

Catalog Number: PDMH100238

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

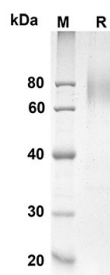
Description

Species	Human
Source	Mammalian-derived Human IL7R protein Glu21-Ser252, with an C-terminal Fc
Calculated MW	50.4 kDa
Observed MW	60-80 kDa
Accession	P16871-4
Bio-activity	Not validated for activity

Properties

Purity	> 90% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 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 proteins, 2 µg/lane of Recombinant Human IL7R proteins was resolved with an SDS-PAGE under reducing conditions, showing bands at 50.4KD

Background

For Research Use Only

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Rev. V1.7

Interleukin 7 Receptor alpha (IL-7RA), also known as CD127, is a 75 kDa hematopoietic receptor superfamily member that plays an important role in lymphocyte differentiation, proliferation, and survival. IL-7 receptor alpha (CD127) signaling is essential for T-cell development and regulation of naive and memory T-cell homeostasis. IL-7RA is critically required for the proper development and function of lymphoid cells. Therefore, the IL-7RA is critically required for the proper development and function of lymphoid cells. 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 an 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. Variation in the IL7RA gene was recently found associated with an multiple sclerosis (MS). The polymorphisms in the IL7RA gene is involved in MS pathogenesis and suggest that IL7RA variation may primarily affect chronic disease courses. Soluble CD127 (sCD127) appears to play an important role in the immunopathogenesis of several chronic infections, multiple sclerosis, and various cancers.