Recombinant Human IL-7RA/CD127 Protein

Catalog No.: RP00976

Sequence Information

Species
Human

Gene ID
3575

Swiss Prot
P16871-1

Tags
C-hFc&His

Synonyms
CD127, CDW127, IL-7R-alpha, IL7RA, ILRA,IL7R,CDW127,IL-7R-alpha,IL7RA,ILRA

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
51.67 kDa

Observed MW
70-90 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

This protein also known as CD127, is a 75 kDa hematopoietin 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. 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. 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. Variation in the IL7RA gene was recently found associated with multiple sclerosis (MS). Soluble CD127 (sCD127) appears to play an important role in the immunopathogenesis of several chronic infections, multiple sclerosis, and various cancers.

Basic Information

Description
Recombinant Human IL-7RA/CD127 Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Glu21-Gly236) of human IL7R alpha (Accession #NP_002176.2) fused with an Fc, 6×His tag at the C-terminus.

Activity
Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human IL7 at 2 μg/mL (100 μL/well) can bind Recombinant Human IL7R alpha, the EC_{50} of Recombinant Human IL7R alpha is 48.44 ng/mL.
2.Measured by its binding ability in a functional ELISA.Immobilized CD127 Mouse mAb at 1μg/mL (25 μL/well) can bind Human CD34 with a linear range of 0.46-5.89ng/mL.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

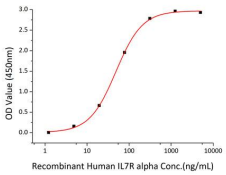
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

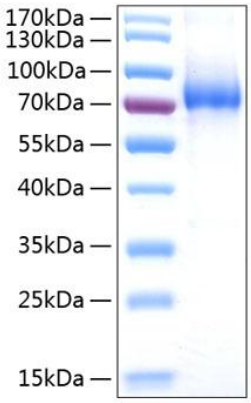
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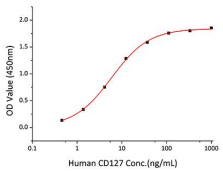
Validation Data



Immobilized Recombinant Human IL7 at 2 μg/mL (100 μL/well) can bind Recombinant Human IL7R alpha, the EC_{50} of Recombinant Human IL7R alpha is 48.44 ng/mL.



Recombinant Human IL-7RA/CD127 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Immobilized CD127 Mouse mAb at 1μg/mL (25 μL/well) can bind Human CD34 with a linear range of 0.46-5.89ng/mL.