

## Anti-IL-7R alpha/CD127 Antibody (2R690)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2R690
Purification:	Protein A

## Applications

Verified Activity:	Flow cytometric analysis of Human IL7Ra(CD127) expression on human whole blood lymphocytes. Cells were stained with purified anti-Human IL7Ra(CD127), then a FITC-conjugated second step antibody. The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable lymphocytes.
Application:	FCM
Recommended	FCM: 1:25-1:100

## Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Human IL7R / IL-7R / CD127 Protein (TMPY-01209)
Antigen Species:	Human
Synonyms:	IL7RA;IL-7R- $\alpha$ ;IL-7R-alpha;CDW127;ILRA;IL7R $\alpha$ /CD127;IL-7R;CD127;interleukin 7 receptor

## Research Background

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 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). 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.

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