

## Anti-CD25/IL2R alpha Antibody-PE (5R661)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	PE
Clone:	5R661
Purification:	Protein A

## Applications

Verified Activity:	Flow cytometric analysis of IL2RA(CD25) expression on stimulated human peripheral blood lymphocytes. Human peripheral blood mononuclear cells were stimulated for 3 days with Phytohemagglutinin, then stained with PE-conjugated anti-Human IL2RA(CD25). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphocytes.
Application:	FCM
Recommended	5 µl/Test, 0.1 mg/ml

## Properties

Stability & Storage:	Store at 2°C-8°C for 12 months, do not freeze. Keep away from direct sunlight. Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Human CD25 / IL2RA Protein (TMPY-01103)
Antigen Species:	Human
Synonyms:	interleukin 2 receptor, α;CD25/IL2R α;interleukin 2 receptor, alpha
Biology Area:	Neuroinflammation, Cancer Drug Targets

## Research Background

CD25 (alpha-chain of the IL-2 receptor, or IL2RA), is a type I transmembrane glycoprotein with a signal peptide, an extracellular region, a transmembrane region, and a cytoplasmic domain. IL2RA is expressed on activated T cells and regulatory T cells and is capable of binding IL2 with low affinity by itself. However, a ligand-induced high-affinity heterotrimeric receptor complex is produced when IL2RA is associated non-covalently with the IL2 receptor beta and gamma chain, and subsequently initiates the intracellular signal pathways such as MAPK or JAK/STAT. On dendritic cells (DC), CD25 has been previously regarded as an activation marker, while both murine and human DC can express CD25, they do not express the beta-chain of the IL-2 receptor, which is indispensable for the execution of IL-2 signaling. The IL2RA (CD25) gene is a substantial component of the high-affinity receptor molecule highly expressed by activated T lymphocytes. Recently, a piece of strong evidence was obtained for the involvement of IL-2RA in conferring susceptibility to type 1 diabetes (T1D). Cancer growth and development are associated with the stimulation of the innate immune system, including enhanced interleukin 2 receptor (IL-2R) expression in immune cells and its shedding into the circulation in a soluble form of sIL-2Ralpha. In most hematological malignancies,

including different types of leukemias and lymphomas, sIL-2Ralpha is released directly from the surface of neoplastic cells thus reflecting the tumor bulk, turnover, and activity. Several studies have proved that not only lymphoid cancer cells but also some non-lymphoid cancer cells, express IL-2R on their surface. They include malignant melanoma and carcinomas of the kidney, head and neck, esophagus, and lung. Thus, sIL-2Ralpha is elevated in most proliferative disturbances of the hematopoietic system and many solid tumors. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

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