



RPES8493

Product Information

Product SKU:	RPES8493	Expression Host:	Mammalian	Size:	20 μ g
Tag:	C-Fc	Reactivity:	Mouse	Accession:	P01590

Additional Information

Calculated MW:	48.5 kDa	Observed MW:	55-60 kDa
Sequence:	Glu22-Lys236		

Protein Information**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

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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.

Synonyms:	IDDM, alpha, CD25, CD25 antigen, IDDM10, IL-2 R alpha, IL-2 receptor subunit alpha, IL-2R subunit alpha, IL2-RA, IL-2-RA, interleukin 2 receptor, Interleukin-2 receptor subunit alpha, Ly-43, p55, TAC antigen, TCGFR, Il2r, Il2ra, Tac, p55, Ly-43, IL-2R&, alpha
Endotoxin:	< 1.0 EU/mg of the protein as determined by the LAL method
Formulation:	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Purity:	> 90% as determined by reducing SDS-PAGE.
Bio-Activity:	Not validated for activity
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.