



Recombinant Protein Technical Manual
Recombinant Mouse IL2Ra/CD25 Protein (His Tag)
RPES3081

Product Data:

Product SKU: RPES3081

Size: 50µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_032393.3

Protein Information:

Molecular Mass: 26 kDa

AP Molecular Mass:

Tag: C-His

Bio-activity:

Purity: > 98 % as determined by SDS-PAGE

Endotoxin: < 1.0 EU per µg of the protein as determined by the LAL method.

Storage: 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 sterile PBS, pH 7.4

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: CD25; Il2r; Ly-43

Immunogen Information:

Sequence: Met 1-Lys 236

Background:

CD25 (alpha-chain of 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 strong evidence was obtained for the involvement of IL-2RA in conferring susceptibility to type 1 diabetes (T1D). Cancer growth and development is 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 haematological malignancies, including different types of leukaemias and lymphomas, sIL-2Ralpha has been found to be released directly from the surface of neoplastic cells thus reflecting the tumour 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, oesophagus and lung. Thus, sIL-2Ralpha is elevated in most proliferative disturbances of the hematopoietic system and in many solid tumors.