# Active Recombinant Rat Interleukin 2 Receptor, Alpha

**Cat. No.** Il2ra-474R **Lot. No.** (See product label)

## SPECIFICATION

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| **Product Overview** | Recombinant Ratll2ra protein was expressed in Chinese Hamster Ovary cell line, CHO-derived. Glu22- Gln235. |
| **Species** | Rat |
| **Source** | CHO |
| **ProteinLength** | 22-235 a.a. |
| **Description** | Il2ra, also known asCD25, is a 55 kDa type I membrane glycoprotein that belongs to the family ofcytokine receptors that utilize the common gamma chain subunit (γc). Il2ra isprimarily expressed on activated T cells and on regulatory T cells (Treg). Therat Il2ra cDNA encodes a 267 amino acid (aa) precursor that includes a 21 aasignal peptide, a 214 aa extracellular domain (ECD) with two Sushi domains, a21 aa transmembrane segment, and an 11 aa cytoplasmic domain. Within the ECD,rat Il2ra shares 58% and 81% aa sequence identity with human and mouse IL2 Rα,respectively. It shares approximately 15% aa sequence identity with IL4, 7, 9,15, and 21 receptor subunits that also complex with γc. |
| **Form** | Lyophilized from a0.2 μm filtered solution in PBS. |
| **N-terminalSequence** | Glu22 |
| **MolecularWeight** | 51.6 kDa (monomer) |

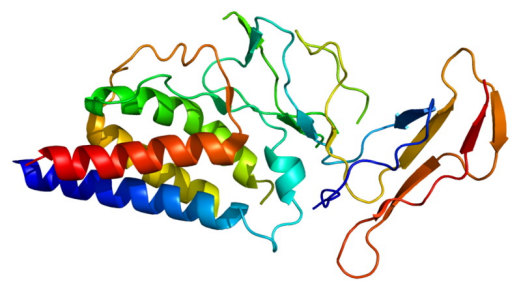
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| **Activity** | Measured by itsability to inhibit the IL2dependent proliferation of MO7e human megakaryocyticleukemic cells. Avanzi, G. et al. (1988) Br. J. Haematol. 69:359. The ED50for this effect is typically 0.35 1.4 µg/mL in the presence of 30 ng/mL of rhIL2. |
| **Endotoxin Level** | <1.0 EU per 1 µgof the protein by the LAL method. |
| **Purity** | >95%, by SDSPAGE underreducing conditions and visualized by silver stain. |
| **Reconstitution** | Reconstitute at 500µg/mL in sterile PBS. |
| **Storage** | Use amanual defrost freezer and avoid repeated freezethaw cycles. 12 months from date of receipt, -20 to -70°C as supplied.1 month, 2 to 8 °C under sterile conditions after reconstitution. 3months, -20 to -70°C under sterile conditions after reconstitution. |

## GENE INFORMATION

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| **Gene Name** | Il2ra interleukin 2 receptor,alpha [ Rattus norvegicus ] |
| **Official Symbol** | Il2ra |
| **Synonyms** | Il2ra; interleukin 2receptor, alpha; IL2RAC; interleukin-2 receptor subunit alpha; IL2-RA; IL-2-RA;IL-2R subunit alpha; IL-2 receptor alpha subunit; IL-2 receptor subunit alpha;interleukin-2 receptor alpha chain; interleukin 2 receptor, alpha chain |
| **Gene ID** | 25704 |
| **mRNA Refseq** | NM_013163 |
| **Protein Refseq** | NP_037295 |
| **Chromosome** | 17q12.3 |

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| **Location** | |
| **Pathway** | Cytokine Signalingin Immune system; Cytokine-cytokine receptor interaction; Endocytosis; HTLV-Iinfection; Hematopoietic cell lineage; IL-2 Signaling Pathway; Immune System;Inflammatory Response Pathway; Interleukin receptor SHC signaling;Interleukin-2 signaling; Interleukin-3, 5 and GM-CSF signaling; Jak-STATsignaling pathway; Measles; Signaling by Interleukins |
| **Function** | drug binding;interleukin-2 binding; interleukin-2 receptor activity; receptor activity |
| **PDB rendering based on 1z92.** |  |

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