

Human IL-2RA Protein; His Tag

Product Information

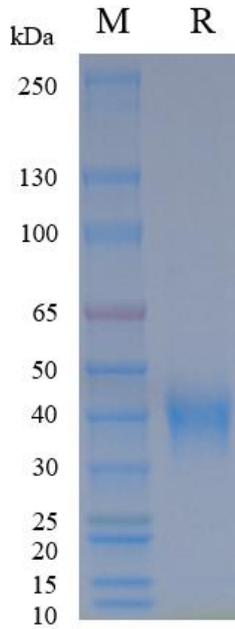
Product Name	Human IL-2RA Protein; His Tag
Storage temp	Store at $\leq -70^{\circ}\text{C}$, stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
Catalog# / Size	GM-88502RP-100 / 100 μg GM-88502RP-1000 / 1 mg

Protein Information

Alternative Names	IL2RA, CD25, p55, IL2-RA, IL-2-RA
Source	Human IL-2RA Protein; His Tag (GM-88502RP) is expressed from human 293 cells (HEK-293). It contains AA Glu 22 - Cys 213 (Accession # NP_000408). This protein carries a His tag at the C-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	22.6 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	<p>IL-2 receptor alpha chain (IL-2Rα), also known as CD25, is the high-affinity component of the IL-2 receptor complex. It is predominantly expressed on activated T cells, regulatory T cells (Tregs), and certain other immune cells, where it functions to capture IL-2 and present it to the IL-2 receptor ensemble. IL-2Rα itself does not signal; it associates with IL-2Rβ (CD122) and the common gamma chain (γc, CD132) to form the functional trimeric receptor, enabling downstream signaling that drives T cell proliferation, survival, and differentiation in response to IL-2.</p> <p>Upon IL-2 binding to the high-affinity receptor complex including IL-2Rα, receptor-associated tyrosine kinases JAK1 and JAK3 are activated, leading to phosphorylation of STAT5 and other substrates. Phosphorylated STAT5 dimerizes and translocates to the nucleus to drive transcription of genes involved in cell cycle progression (e.g., Cyclin D2), anti-apoptotic signaling, and metabolic reprogramming. In addition to the JAK-STAT pathway, IL-2R signaling engages PI3K-AKT and MAPK pathways, contributing to T cell growth and differentiation.</p>

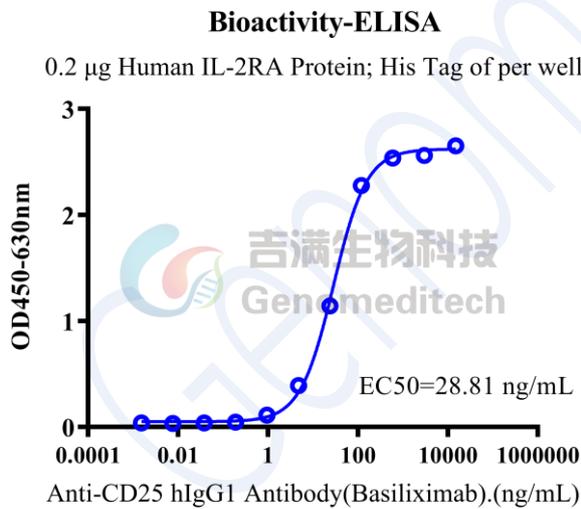
Version:4.0

SDS-PAGE



On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Human IL-2RA Protein; His Tag (Catalog # GM-88502RP) was immobilized at 2 μ g/ml (100 μ L/well). Increasing concentrations of Anti-CD25 hIgG1 Antibody(Basiliximab) (Catalog # GM-52329AB) were added.