

Human IL-2RG Protein; His Tag

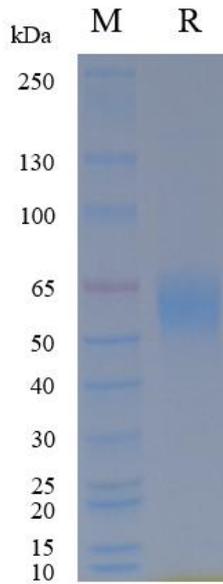
Product Information

Product Name	Human IL-2RG 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-88508RP-100 / 100 μg GM-88508RP-1000 / 1 mg

Protein Information

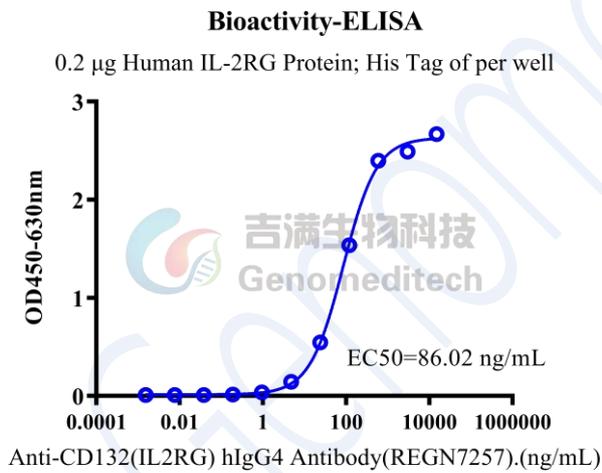
Alternative Names	IL2RG, CD132, CIDX, IMD4, P64, SCIDX, SCIDX1, gammaC
Source	Human IL-2RG Protein; His Tag (GM-88508RP) is expressed from human 293 cells (HEK-293). It contains AA Leu 23 - Asn 254 (Accession # P31785-1). This protein carries a His tag at the C-terminus.
Purity	> 95% as determined by SDS-PAGE
Endotoxin	< 1 EU/ μg , determined by LAL gel clotting assay
Predicted Mol Mass	28.2 KDa
Formulation	Supplied as a 0.2 μm filtered solution of PBS, pH7.2-7.4.
Description	IL-2RG, also called γc , is a transmembrane subunit shared by IL-2, IL-4, IL-7, IL-9, IL-15, and IL-21 receptors. Encoded by IL2RG, it is essential for lymphoid cell development, survival, and function (T cells, NK cells, Tregs). Mutations cause X-SCID, highlighting its role in lymphoid lineage commitment and immune homeostasis. γc traffics to the cell surface to participate in receptor assembly and signal transduction upon cytokine binding. IL-2RG forms heteromeric receptors with specific IL-2/IL-4/IL-7/IL-9/IL-15/IL-21 α and β chains. Ligand binding activates JAK1/JAK3, phosphorylating receptor tails and recruiting STATs, mainly STAT5. Activated STAT5 dimerizes, translocates to the nucleus, and drives genes for proliferation, survival, and differentiation. γc also cross-talks with PI3K/AKT and MAPK pathways, promoting growth and metabolic regulation. Defects in IL-2RG signaling impair T/NK cell development, underscoring its central role in adaptive immunity.

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-2RG Protein; His Tag (Catalog # GM-88508RP) was immobilized at 2 μ g/ml (100 μ L/well). Increasing concentrations of Anti-CD132(IL2RG) hIgG4 Antibody (REGN7257) (Catalog # GM-52334AB) were added.