Active Recombinant Human IL2RA protein, Fc/Avi-tagged, Biotinylated

Cat. No. IL2RA-051H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Biotinylated Recombinant Human IL2RA(Glu22-Cys213) protein, fused to Fc/Avi tag at the C-terminus, was expressed in HEK293 cells .
Species	Human
Source	HEK293
ProteinLength	Glu22-Cys213
Description	IL-2 receptor alpha (IL2R alpha), also known as CD25, is a 55 kDa type I membrane glycoprotein that belongs to the family of cytokine receptors that utilize the common gamma chain subunit (gamma c). Human IL-2R alpha cDNA encodes a 213 amino acid (aa) precursor with a 21 aa signal peptide and a 192 aa extracellular region. The ECD of Human IL-2R alpha shares a 59% amino acid sequence identity with the ECD of mouse and rat IL2R alpha, respectively. IL-2R alpha is primarily expressed on activated T cells and on regulatory T cells (Treg) (1-3). IL-2R beta (CD122) and gamma c (IL-2R gamma /CD132) dimerize to form a constitutively expressed intermediate affinity IL-2 receptor (4, 5). By itself, IL-2R alpha binds IL-2 with low affinity. IL-2R alpha makes no contacts with IL-2R beta or gamma c, and only minor changes are observed in the IL-2 structure in response to receptor binding. These findings support the principal role of IL-2R alpha to deliver IL-2 to the signaling complex and act as regulator of signal transduction (6, 7). A soluble form of IL-2R alpha can be generated by proteolytic cleavage of the cell surface

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	receptor, rendering the T cell unresponsive to IL-2 (8, 9). Increased serum levels of soluble IL-2R alpha are found in some cancers and immune disorders (10). IL-2R alpha is required for activation induced cell death (AICD) of naive T cells, a mechanism responsible for deleting autoreactive T cell clones (11, 12). IL-2R alpha is also required for the development of CD4+CD25+ Treg which suppresses autoreactive CD4+ T cells, thereby contributing to peripheral T cell homeostasis (11-13).
Predicted N Terminal	Glu22
Form	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose.
Bio-activity	Measured by its binding ability in a functional ELISA. When Recombinant Human IL2 is immobilized at 1 g/mL (100 μ/well), Biotinylated Recombinant Human IL2RA Fc Chimera Avi-tag binds with an ED50 of 50-450 ng/mL.
Molecular Mass	69-77 kDa, under reducing conditions
Endotoxin	<0.10 EU per 1 μg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Applications	Bioactivity
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles.12 months from date of receipt, -20 to -70 °C as supplied.1 month, 2 to 8 °C under sterile conditions after reconstitution.3 months, -20 to -70 °C under sterile conditions after reconstitution.

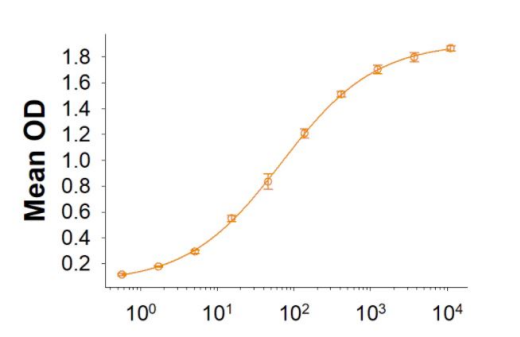
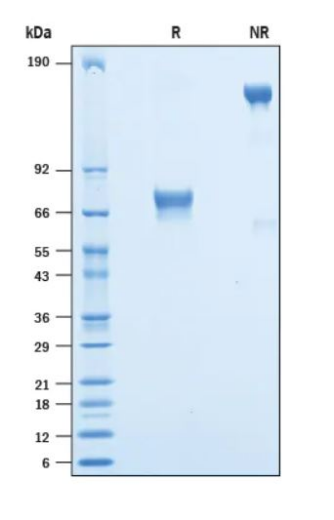
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Reconstitution	Reconstitute at 500 µg/mL in PBS.
Conjugation	Biotin

GENE INFORMATION

Gene Name	IL2RA interleukin 2 receptor, alpha [Homo sapiens]
Official Symbol	IL2RA
Synonyms	IL2RA; interleukin 2 receptor, alpha; IL2R; interleukin-2 receptor subunit alpha; CD25; p55; IL2-RA; IL-2-RA; TAC antigen; IL-2R subunit alpha; IL-2 receptor subunit alpha; TCGFR; IDDM10;
Gene ID	3559
mRNA Refseq	NM_000417
Protein Refseq	NP_000408
MIM	147730
UniProt ID	P01589

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Binding Activity	
SDS-PAGE	 2 μg/lane Protein was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining.

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