

Recombinant Human IL2RA protein, His-tagged

Cat. No. IL2RA-2025H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL2RA (Glu22-Cys213) protein was fused to His-tag at C-terminus and expressed in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	Glu22-Cys213
Description	Interleukin-2 receptor subunit alpha (IL2RA) is also known as IL-2R subunit alpha, IL-2-RA, IL2-RA, TAC antigen, p55, CD antigen CD25, is a type I transmembrane glycoprotein. 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.
Predicted N Terminal	Glu22
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4, 10% trehalose.
Molecular Mass	The protein has a calculated MW of 23.6 kDa. The protein migrates as 34-46 kDa

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under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin Less than 1.0 EU per µg by the LAL method.

Purity >95% as determined by SDS-PAGE.

Storage

For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20 to -70 centigrade for 12 months in lyophilized state;
- 70 centigrade for 3 months under sterile conditions after reconstitution.

Reconstitution It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

GENE INFORMATION

Gene Name IL2RA

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

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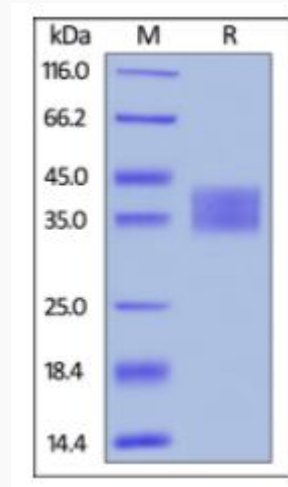
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MIM 147730

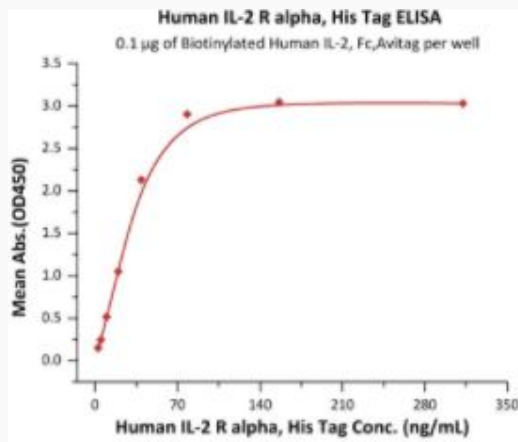
UniProt ID P01589

SDS-PAGE of IL2RA-2025H



Human IL-2 R alpha, His Tag 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 of IL2RA-2025H



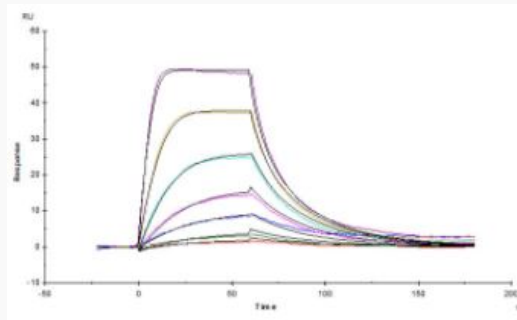
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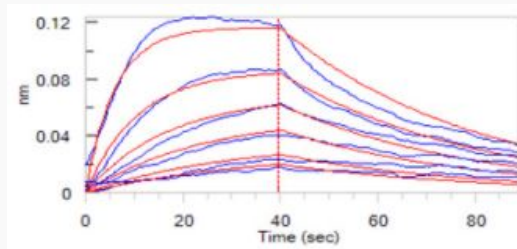
Immobilized Biotinylated Human IL-2, Fc,Avitag at 1 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) on streptavidin precoated (0.2 $\mu\text{g/well}$) plate, can bind Human IL-2 R alpha, His Tag with a linear range of 1-39 ng/mL (QC tested).

Bioactivity-SPR



Human IL-2 R alpha, His Tag captured on CM5 chip via anti-His antibody, can bind Human IL-2, Tag Free with an affinity constant of 29.9 nM as determined in a SPR assay (Biacore T200) (Routinely tested).


Bioactivity-BLI of IL2RA-2025H



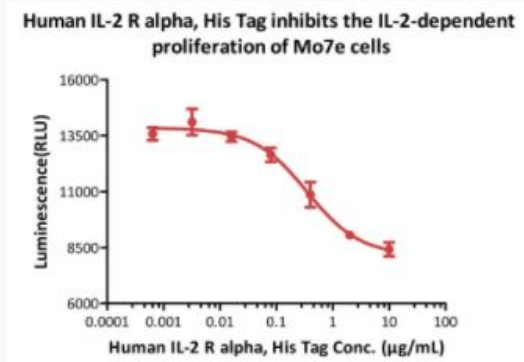
Loaded Human IL-2 R alpha, His Tag on HIS1K Biosensor, can bind Human IL-2, Tag Free with an affinity constant of 18 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

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**Bioactivity-Cell
based assay of
IL2RA-2025H**



Human IL-2 R alpha, His Tag inhibits the IL-2 dependent proliferation of Mo7e cells.
The EC50 for this effect is 0.35-0.77 µg/mL (Routinely tested).

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