

# Human IL-7 R alpha/CD127 Protein

Cat. No. IL7-HM1RA

## Description

<b>Source</b>	Recombinant Human IL-7 R alpha/CD127 Protein is expressed from HEK293 with His tag at the C-Terminus. It contains Glu21-Gly236.
<b>Accession</b>	P16871-1
<b>Molecular Weight</b>	The protein has a predicted MW of 25.7 kDa. Due to glycosylation, the protein migrates to 50-60 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per $\mu\text{g}$ by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

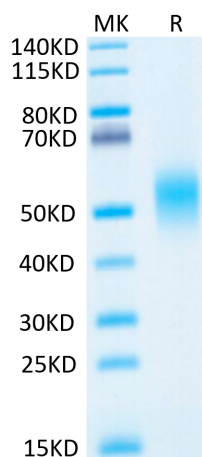
<b>Formulation</b>	Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.
<b>Storage</b>	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

## Background

Interleukin 7 (IL-7) and its receptor (IL-7R, a heterodimer of IL-7R $\alpha$  and  $\gamma\text{c}$ ) are essential for normal lymphoid development. IL-7 and IL-7R activate three main pathways: STAT5, PI3K/Akt/mTOR and MEK/Erk, ultimately leading to the promotion of leukemia cell viability, cell cycle progression and growth.

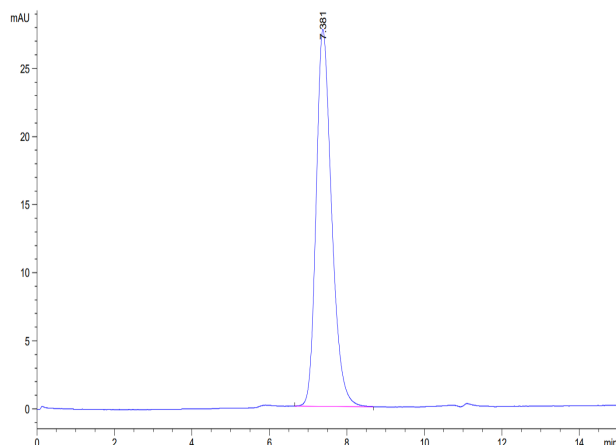
## Assay Data

### Bis-Tris PAGE



Human IL-7 R alpha on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

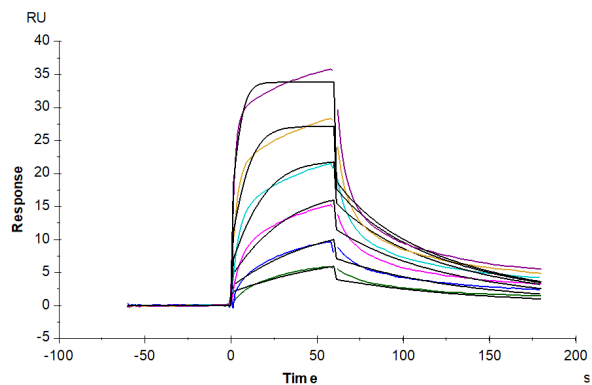
### SEC-HPLC



The purity of Human IL-7 R alpha is greater than 95% as determined by SEC-HPLC.

Assay Data

SPR Data



Human IL-7 R alpha, His Tag captured on CM5 Chip via anti-his antibody can bind Human IL-7, No Tag with an affinity constant of 7.15 nM as determined in SPR assay (Biacore T200).