

Human IL-7 Protein

Cat. No. IL7-HE001



Description

Source	Recombinant Human IL-7 Protein is expressed from E.coli without tag.
	It contains Asp26-His177.
Accession	P13232
Molecular Weight	The protein has a predicted MW of 17.5 kDa same as Bis-Tris PAGE result.
Endotoxin	Less than 0.01 EU per µg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

Formulation and Storage

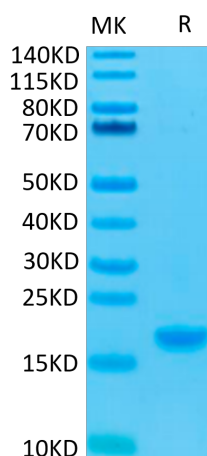
Formulation	Lyophilized from 0.22 µm filtered solution in PBS (pH 8.0). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Dissolve the lyophilized protein in distilled water. Please refer to the Certificate of Analysis for detailed instructions.
Storage	-20 to -80°C for 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 (IL7) plays a nonredundant role in T cell survival and homeostasis, which is illustrated in the severe T cell lymphopenia of IL7-deficient mice, or demonstrated in animals or humans that lack expression of either the IL7Rα or γ c chain, the two subunits that constitute the functional IL7 receptor.

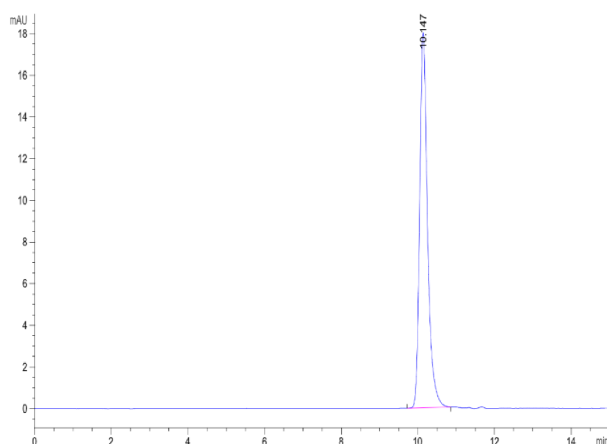
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



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

Human IL-7 Protein

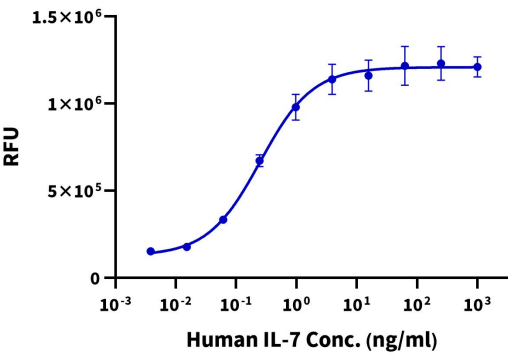
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Assay Data

Cell Based Assay

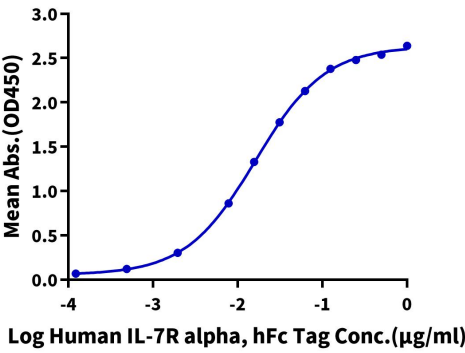
Recombinant Human IL-7 Bioactivity



Measured in a cell proliferation assay using murine 2E8 cells. The ED50 for this effect is 0.1 - 0.5 ng/mL (QC tested).

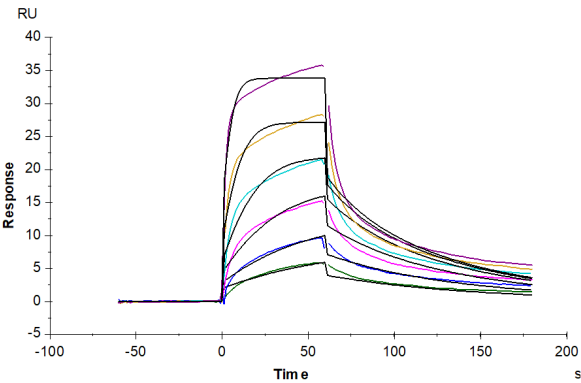
ELISA Data

Human IL-7, No Tag ELISA
0.2µg Human IL-7, No Tag Per Well



Immobilized Human IL-7 at 2µg/ml (100µl/Well) on the plate. Dose response curve for Human IL-7R alpha, hFc Tag with the EC50 of 16.2ng/ml determined by ELISA (QC tested).

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).