

Human IL-15 Protein

Cat. No. IL5-HE015

Description

Source	Recombinant Human IL-15 Protein is expressed from E.coli without tag. It contains Asn49-Ser162.
Accession	P40933
Molecular Weight	The protein has a predicted MW of 12.8 kDa same as Tris-Bis PAGE result.
Endotoxin	Less than 1EU per µg by the LAL method.
Purity	> 95% as determined by Tris-Bis PAGE > 95% as determined by SEC-HPLC

Formulation and Storage

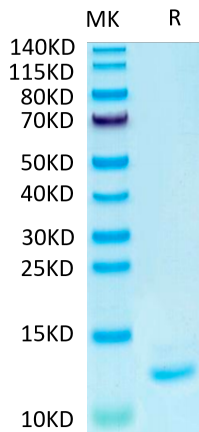
Formulation	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -20 to -80°C for 3-6 months in unopened state after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Interleukin 15 (IL-15) is a widely expressed 14 kDa cytokine that is structurally and functionally related to IL-2 and plays an important role in many immunological diseases. IL-15 is a cytokine that stimulates the proliferation of T-lymphocytes. Stimulation by IL15 requires interaction of IL15 with components of the IL2 receptor, including IL2RB and probably IL2RG but not IL2RA.

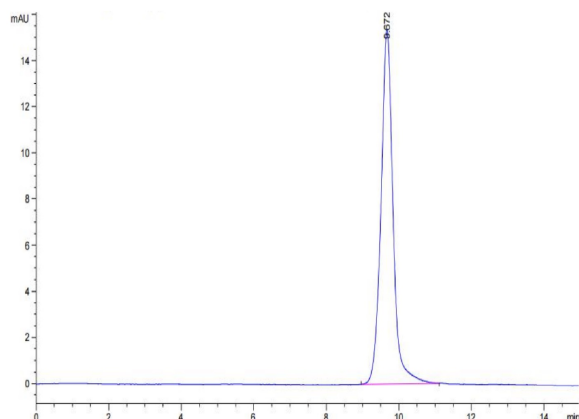
Assay Data

Tris-Bis PAGE



Human IL-15 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC

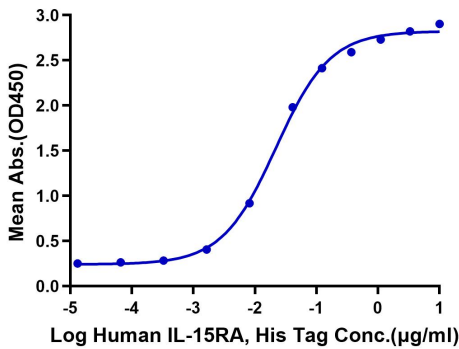


The purity of Human IL-15 is greater than 95% as determined by SEC-HPLC.

Assay Data

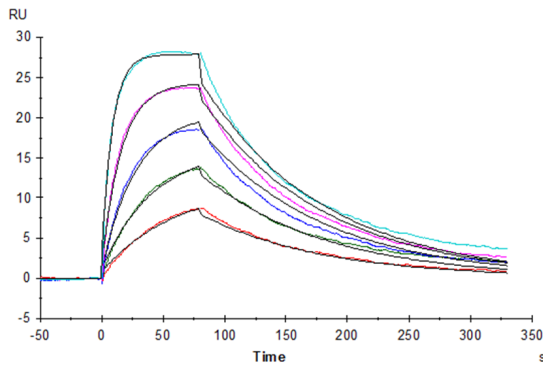
ELISA Data

Human IL-15, No Tag ELISA
0.1µg Human IL-15, No Tag Per Well



Immobilized Human IL-15 at 1µg/ml (100µl/Well) on the plate. Dose response curve for Human IL-15RA, His Tag with the EC50 of 22.1ng/ml determined by ELISA.

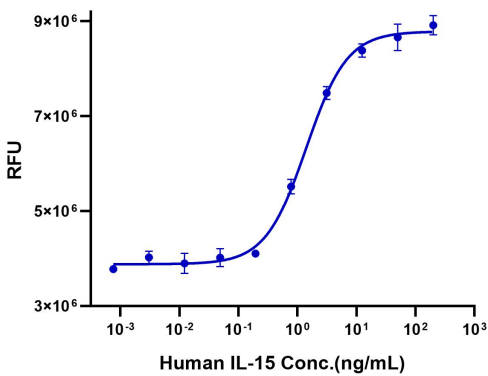
SPR Data



Human IL-2 R beta, His Tag captured on CM5 Chip via Anti-His Antibody can bind Human IL-15, No Tag with an affinity constant of 5.9nM as determined in SPR assay (Biacore T200).

Cell Based Assay

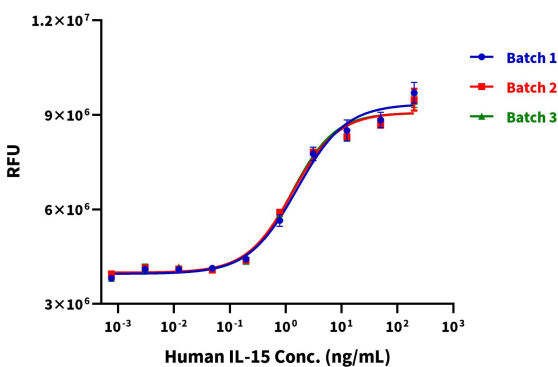
Recombinant Human IL-15 Bioactivity



Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. The ED50 for this effect is 1-2 ng/mL. The specific activity of recombinant human IL-15 is > 5 x 10⁷ units/mg, which is calibrated against the human IL-15 reference standard (NIBSC code: 95/554) (QC Test).

Batch to Batch Consistency

Recombinant Human IL-15 Bioactivity



Measured in a cell proliferation assay using MO7e human megakaryocytic leukemic cells. Bioactivity of three different batches of Human IL-15 shows very high batch-to-batch consistency.