

# Human IL-31 Protein

Cat. No. IL3-HM101

## Description

<b>Source</b>	Recombinant Human IL-31 Protein is expressed from HEK293 with His tag at the N-Terminus. It contains Ser24-Thr164.
<b>Accession</b>	Q6EBC2-1
<b>Molecular Weight</b>	The protein has a predicted MW of 16.9 kDa. Due to glycosylation, the protein migrates to 20-25 kDa based on Bis-Tris PAGE result.
<b>Endotoxin</b>	Less than 1EU per µg by the LAL method.
<b>Purity</b>	> 95% as determined by Bis-Tris PAGE > 95% as determined by HPLC

## Formulation and Storage

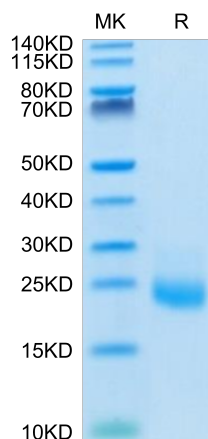
<b>Formulation</b>	Lyophilized from 0.22µm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
<b>Reconstitution</b>	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 µg/ml is recommended. Dissolve the lyophilized protein 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

Many autoimmune skin diseases, such as bullous pemphigoid (BP), psoriasis and certain types of chronic urticaria, are associated with intensive pruritus. While histamine and neuropeptides have previously been ascribed to play a role in itch that accompanies these diseases, recent evidence suggests that the pruritogenic cytokine interleukin (IL)-31 is a major driver of pruritic responses. IL-31 was originally shown to be produced by activated helper T cells, particularly Th2 cells, mast cells, macrophages and dendritic cells.

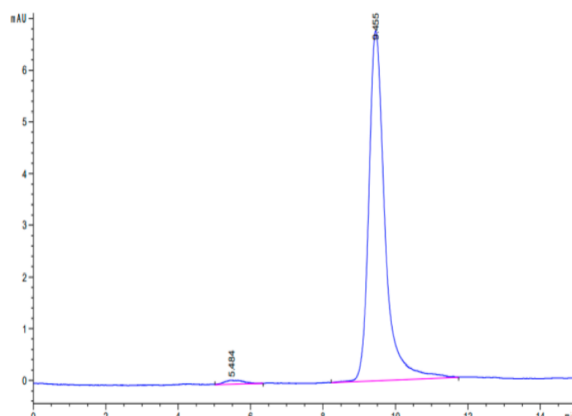
## Assay Data

### Bis-Tris PAGE



Human IL-31 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



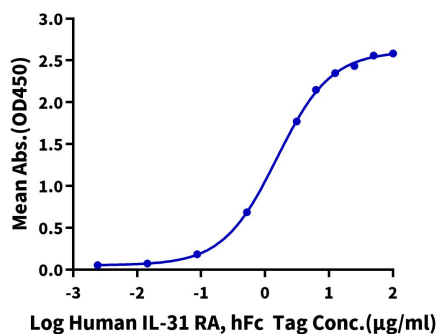
The purity of Human IL-31 is greater than 95% as determined by SEC-HPLC.

Assay Data

ELISA Data

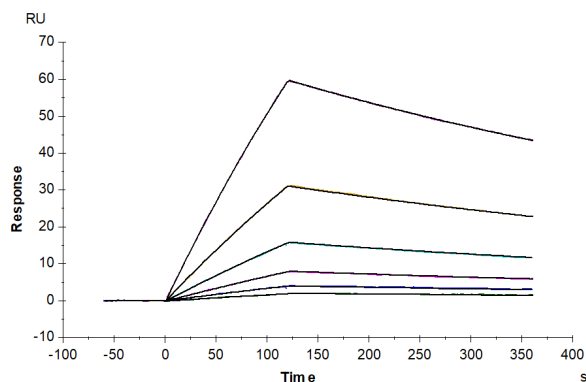
**Human IL-31, His Tag ELISA**

0.5µg Human IL-31, His Tag Per Well



Immobilized Human IL-31, His Tag at 5µg/ml (100µl/Well) on the plate. Dose response curve for Human IL-31 RA, hFc Tag with the EC50 of 1.53µg/ml determined by ELISA (QC Test).

SPR Data



Human IL-31, His Tag immobilized on CM5 Chip can bind Human IL-31 RA, His Tag with an affinity constant of 125.61 nM as determined in SPR assay (Biacore T200).