

# Recombinant Human IL-31 Protein

Catalog No.: RP00634 **Recombinant**

## Sequence Information

<b>Species</b>	<b>Gene ID</b>	<b>Swiss Prot</b>
Human	386653	Q6EBC2-1

### Tags

N-His

### Synonyms

Interleukin-31; IL-31;IL31

## Product Information

<b>Source</b>	<b>Purification</b>
HEK293 cells	≥ 95 % as determined by SDS-PAGE; ≥ 95 % as determined by HPLC.

<b>Calculated MW</b>	<b>Observed MW</b>
16.9 kDa	20-25 kDa

### Endotoxin

&lt; 1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from 0.22 μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## 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.

## Basic Information

### Description

Recombinant Human IL-31 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser24-Thr164) of Human IL-31 (Accession #Q6EBC2-1) fused with a N-His tag at the N-terminus.

### Bio-Activity

### Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

### Storage

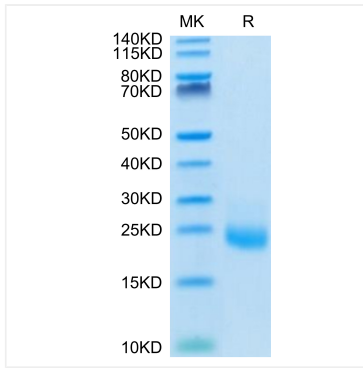
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

### Operational Notes

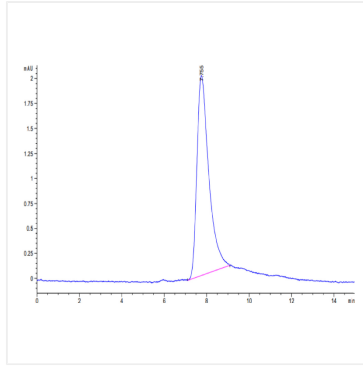
For your safety and health, please wear a lab coat and disposable gloves for handling.



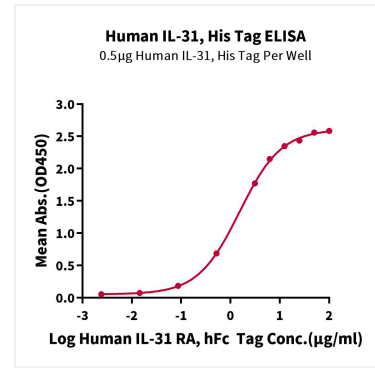
## Validation Data



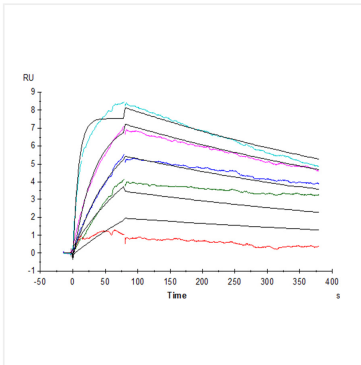
Recombinant Human IL-31 Protein was determined by Tris-Bis PAGE under reducing conditions.



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



Immobilized Human IL-31, His Tag at 5 µg/mL (100 µL/Well) on the plate. Dose response curve for Human IL-31 RA, hFc Tag with the  $EC_{50}$  of 1.53 µg/mL determined by ELISA (QC Test).



Human IL-31 RA, hFc Tag captured on Protein A chip, can bind Human IL-31, His Tag with an affinity constant of 1.5nM as determined in a SPR assay (Biacore T200).