

Human IL-31 Protein, premium grade

Catalog # IL1-H5219



BIOSYSTEMS
Acro

Synonyms

IL-31, IL31, Interleukin-31

Source

Human IL-31 Protein, premium grade (IL1-H5219) is expressed from human 293 cells (HEK293). It contains AA Ser 24 - Thr 164 (Accession # [Q6EBC2-1](#)).

Predicted N-terminus: Ser 24

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

Molecular Characterization

IL-31(Ser 24 - Thr 164)
Q6EBC2-1

This protein carries no "tag".

The protein has a calculated MW of 15.8 kDa. The protein migrates as 18-20 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per µg by the LAL method / rFC method.

Sterility

Negative

Mycoplasma

Negative

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Shipping and Storage

This product is shipped at ambient temperature.

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

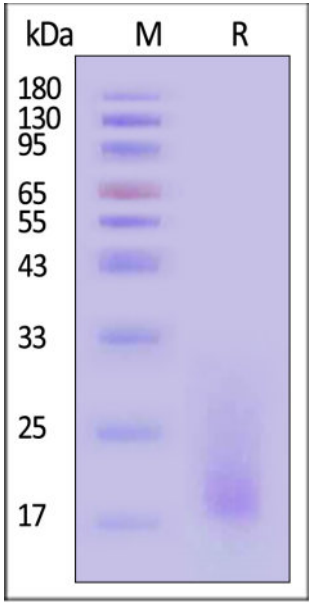
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

ACRO Quality Management System

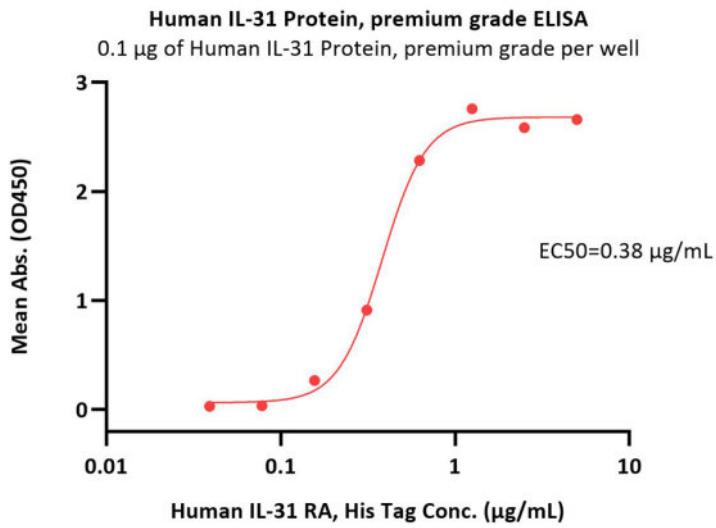
- [QMS\(ISO, GMP\)](#)
- [Quality Advantages](#)
- [Quality Control Process](#)

SDS-PAGE



Human IL-31 Protein, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-ELISA



Immobilized Human IL-31 Protein, premium grade (Cat. No. IL1-H5219) at 1 µg/mL (100 µL/well) can bind Human IL-31 RA, His Tag (Cat. No. ILA-H52H7) with a linear range of 0.156-2.5 µg/mL (QC tested).

Background

IL-31 is an inflammatory cytokine that helps trigger cell-mediated immunity against pathogens. Activates STAT3 and possibly STAT1 and STAT5 through the IL31 heterodimeric receptor composed of IL31RA and OSMR. It has also been identified as a major player in a number of chronic inflammatory diseases, including atopic dermatitis. May function in skin immunity. IL-31 is produced by a variety of cells, namely type 2 helper (TH2) T-cells. IL-31 sends signals through a receptor complex made of IL-31RA and oncostatin M receptor β (OSMR β) expressed in immune and epithelial cells. These signals activate three pathways: ERK1/2 MAP kinase, PI3K/AKT, and JAK1/2 signaling pathways.



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