

Active GMP Recombinant Human IL31 protein

Cat. No. IL31-4336HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human IL31 was produced in E. coli using non-animal reagents in an animal-free facility under cGMP guidelines.
Species	Human
Source	E.coli
Description	Human Interleukin-31 (IL-31) is a T-cell derived cytokine that shares several structural and functional characteristics with IL-6, Oncostatin M, LIF, and Cardiotrophin-1. It signals through a receptor complex comprised of GPL (GP130-like, IL-31RA) and OSMR (Oncostatin M receptor). GPL/OSMR signaling is a strong activator of STAT3 and STAT5, and can also activate STAT1, Jak1, and Jak2 signaling pathways. IL-31 regulated immune responses have been implicated in skin physiology and inflammatory skin diseases.
Form	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH7.4.
Bio-activity	The specific activity is determined by inducing STAT3 activation using human U-87 MG cells. 5 ng/mL of IL31 can effectively induce STAT3 activation.
Molecular Mass	Approximately 15.8 kDa, a single non-glycosylated polypeptide chain containing 141 amino acids.
AA Sequence	SHTLPVRLRLPSDDVQKIVEELQSLSKMLLKDVVEEEKGVLVSQNYTLPCLSPDAQPP NNIHSPAIRAYLKTI RQLDNKSVIDEIIEHLDKLIFQDAPETNISVPTDTHECKRFILTISQ

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QFSECMDLALKSLTSGAQATT

Endotoxin

Less than 1 EU/μg of the protein by LAL method.

Purity

>97% by SDS-PAGE and HPLC analyses.

Storage

This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably des centigradecated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 centigrade to -70 centigrade. Avoid repeated freeze/thaw centigrade centigradeles.

Reconstitution

Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

Quality Statement

Our GMP proteins are produced according to relevant sections of the following documents: WHO TRS, No. 822, 1992 Annex 1, Good Manufacturing Practices for Biological Products; USP Chapter 1043, Ancillary Materials for Cell, Gene and Tissue-Engineered Products and USP Chapter 92, Growth Factors and Cytokines Used in Cell Therapy Manufacturing.

Shipping

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

GENE INFORMATION

Gene Name

IL31 interleukin 31 [Homo sapiens]

Official Symbol

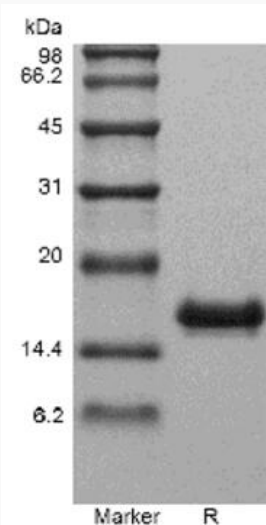
IL31

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Synonyms	IL31; interleukin 31; interleukin-31; IL 31; IL-31;
Gene ID	386653
mRNA Refseq	NM_001014336
Protein Refseq	NP_001014358
MIM	609509
UniProt ID	Q6EBC2



SDS-PAGE gel image showing a protein band in lane R. Molecular weight markers are indicated on the left: 98, 66.2, 45, 31, 20, 14.4, and 6.2 kDa. The protein band in lane R is located between the 14.4 and 20 kDa markers.