

# Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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### Interleukin-31, human recombinant (rHulL-31)

Catalog No: 97227 Lot No: XXXXX Source: E. coli

**Synonyms:** Interleukin 31, IL31, IL-31

#### **Background**

IL-31 produced by activated Th2-type T cells, cooperates with a heterodimeric receptor consisting of IL-31 Receptor Anatagonist and Onconstatin-M Receptor that is continuesly expressed on epithelial cells and keratinocytes. IL-31 plays a role in the promotion of allergic skin disorders and in regulating other allergic diseases, such as asthma. IL-31 is involved in the itching sensation and endorses the scratching behavior in NC/Nga mice with atopic dermatitis. IL-31 expression is connectd with CLA(+) T cells and contributes to the development of atopic dermatitis-induced skin inflammation and pruritus. IL-31 is a powerful inducer of proinflammatory mediators in human colonic SEMFs. IL-31 takes part as a proinflammatory cytokine derived from Th2 cells. Serum IL-31 level is higher in patients with atopic dermatitis. IL-31 is involved in a broad range of immune- & non-immune cells & possesses potential pleiotropic physiological functions, including regulating hematopoiesis & immune response, causing inflammatory bowel disease, airway hypersensitivity & dermatitis.

#### Description

Interleukin-31 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 141 amino acids (24-164) and having a molecular mass of 15.8 kDa.

#### **Physical Appearance**

Sterile filtered white lyophilized (freeze-dried) powder.

#### **Formulation**

IL-31 (1 mg/ml) was lyophilized with 20 mM phosphate buffer, 150 mM NaCl pH 7.4.

#### Solubility

It is recommended to reconstitute the lyophilized Interleukin-31 in sterile 18 M $\Omega$ -cm H $_2$ O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

#### Stability

Lyophilized IL-31, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IL-31 should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

#### Purity

Greater than 95.0% as determined by (a) Analysis by SEC-HPLC, (b) Analysis by SDS-PAGE.

#### **Amino Acid Sequence**

SHTLPVRLLR PSDDVQKIVE ELQSLSKMLL KDVEEEKGVL VSQNYTLPCL SPDAQPPNNI HSPAIRAYLK TIRQLDNKSV IDEIIEHLDK LIFQDAPETN ISVPTDTHEC KRFILTISQQ FSECMDLALK SLTSGAQQAT T

#### **Activity**

The ED50 was determined by its ability to activate STAT following receptor ligand interaction and found to be <5 ng/ml, corresponding to a specific activity of 200,000 units.





#### Usage

This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.