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**Product Data Sheet**


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Product Name: IL 31 Human  
 Cat. No.: GP20640  
 Batch No.: 1

**Product Data**

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Interleukin 31; IL31; IL-31.		
Amino Acid Sequence	SHTLPVRLLR PSDDVQKIVE ELQSLSKMLL KDVEEEKGVL VSQNYTLPLCL SPDAQPPNNI HSPAIRAYLK TIRQLDNKSV IDEIIEHLDK LIFQDAPETN ISVPTDTHC KRFILTISQQ FSECMDLALK SLTSGAQQAT T.		
Solubility	It is recommended to reconstitute the lyophilized IL-31 in sterile 18MΩ-cm H <sub>2</sub> O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The IL-31 (1mg/ml) was lyophilized with 20mM Phosphate buffer, 150mM NaCl pH-7.4.		

**Introduction**

IL-31 produced by activated Th2-type T cells, cooperates with a heterodimeric receptor consisting of IL-31 Receptor Antagonist and Oncostatin-M Receptor that is continuously 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 connected 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.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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### Biological Activity

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

### Stability

Lyophilized IL-31 Recombinant 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.

### Background

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

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