

Growth Factor Data Sheet

GoldBio growth factors are manufactured for **RESEARCH USE ONLY** and cannot be sold for human consumption!

The human interleukin-31 (IL31) gene is located on chromosome 12, and is regulated so that IL31 is expressed in low levels in type 2 helper T-cells, which exist in the testis, bone marrow, skeletal muscle, kidney, colon, thymus, small intestine and trachea. IL31 shares several structural and functional characteristics with IL6, oncostatin M, leukemia inhibitory factor (LIF), and cardiotrophin-1. IL31 signals through the IL31 receptor A and oncostatin M receptor subunits. IL31 can also activate STAT3 through receptors and may be involved in skin immunity. Its use of regulating immune responses has been implicated in skin physiology and inflammatory skin diseases. IL31 may play a role in allergic diseases or disorders such as bronchial inflammation and asthma. Human IL31 shares 24% amino acid sequence homology with the mature mouse IL31.

Catalog Number	1110-31
Product Name	IL31, Human Recombinant Human Interleukin-31 IL31 Interleukin 31
Source	<i>Escherichia coli</i>
MW	15.8 kDa (141 amino acids)
Sequence	SHTLPVRLLR PSDDVQKIVE ELQSLSKMLL KDVEEEKGVL VSQNYTLPLCL SPDAQPPNNI HSPAIRAYLK TIRQLDNKSV IDEIIEHLDK LIFQDAPETN ISVPTDTHC KRFLTISQQ FSECMDLALK SLTSGAQQAT T
Accession Number	Q6EBC2
Purity	>97% by SDS-PAGE and HPLC analyses
Biological Activity	Fully biologically active when compared to standard. The specific activity is determined by inducing STAT3 activation using human U-87 MG cells. 5 ng/mL of rHuIL-31 can effectively induce STAT3 activation.
Formulation	Sterile filtered white lyophilized powder. Purified and tested for use in cell culture.
Storage/Handling	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage. The reconstituted sample can be apportioned into working aliquots and stored at -80 °C for up to 6 months. Avoid repeated freeze/thaw cycles.
Reconstitution	The sample should be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in a siliconized tube using PBS that contains a 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Reconstituted solutions are stable for up to one week at 2-8°C. Stock solutions should be aliquoted and stored at -80°C. Further dilutions should be made in appropriate buffered solutions containing BSA or serum.