

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	101-31
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 15.8 kDa, a single non-glycosylated polypeptide chain containing 141 amino acids.
Quantity:	2µg/10µg/1000µg
AA Sequence:	SHTLPVRLLR PSDDVQKIVE ELQSLSKMLL KDVEEEKGVL VSQNYTLPLCL SPDAQPPNNI HSPAIRAYLK TIRQLDNKSV IDEIIEHLDK LIFQDAPETN ISVPTDTHC KRFILTISQQ FSECMDLALK SLTSGAQQAT T
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.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH7.4.
Endotoxin:	Less than 1 EU/µg of rHuIL-31 as determined by LAL method.
Reconstitution:	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. 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 °C . Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Human Interleukin-31

Human IL-31 gene is located on Chr.12. It expresses the IL-31 protein at low levels in the type 2 helper T cells, which exists in testis, bone marrow, skeletal muscle, kidney, colon, thymus, small intestine and trachea. This protein shares several structural and functional characteristics with IL-6, Oncostatin M, LIF, and Cardiotrophin-1. IL-31 signals through IL-31 receptor A and oncostatin M receptor subunits and can activate STAT3 through receptors and maybe involve in skin immunity. It regulated immune responses have been implicated in skin physiology and inflammatory skin diseases. Human IL-31 shares 24 % a.a. sequence identity in the mature protein with mouse IL-31.