



Technical Data Sheet

Recombinant Human Interleukin-31 (rHu IL-31)

Human Interleukin-31

Human 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.

Catalog Number:	RC212-42
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 15.8 kDa, a single non-glycosylated polypeptide chain containing 141 amino acids.
Quantity:	2ug/10ug/1mg
Purity:	>97% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. Measured by its ability to induce STAT3 activation in U-87 MG human glioblastoma/astrocytoma cells. 5 ng/mL of rhIL31 can effectively induce STAT3 activation.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated solution in PBS.
AA Sequence:	SHTLPVRLLR PSDDVQKIVE ELQSLSKMLL KDVEEEKGVL VSQNYTLPLCL SPDAQPPNNI HSPAIRAYLK TIRQLDNKSV IDEIIEHLDK LIFQDAPETN ISVPTDTHC KRFILTISQQ FSECMDLALK SLTSGAQQAT T
Endotoxin:	Less than 1EU/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.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated



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Usage:

freeze/thaw cycles.

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