

IL-31, Human

Cat. No.: Z02717-1

Size: 1.0 mg

Synonyms: Interleukin-31 (IL-31), Human

Description:

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.

Amino Acid Sequence:

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00001 SHTLPVRLLR PSDDVQKIVE ELQSLSKMLL KDVEEEKGVL
00041 VSQNYTLPLCL SPDAQPPNNI HSPAIRAYLK TIRQLDNKSV
00081 IDEIIEHLDK LIFQDAPETN ISVPTDTHC KRFILTISQQ
00121 FSECMDLALK SLTSGAQQAT T
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Source: *E. coli*

Species: Human

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.

Molecular Weight: Approximately 15.8 kDa, a single non-glycosylated polypeptide chain containing 141 amino acids.

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH7.4.

Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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.

Purity: > 97 % by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/µg of rHuIL-31 as determined by LAL method.

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 freeze/thaw cycles.