



## IL-31

E21-053

**Catalog Number:**E21-053

**Amount:**10ug

**Altername:**Interleukin-31; IL-31; IL31

**Storage/Stability:**Lyophilized protein should be stored at  $< -20^{\circ}\text{C}$ , though stable at room temperature for 3 weeks.Reconstituted protein solution can be stored at  $4-7^{\circ}\text{C}$  for 2-7 days.Aliquots of reconstituted samples are stable at  $< -20^{\circ}\text{C}$  for 3 months.

**Background:**Human Interleukin 31 (IL-31) is a cytokine containing a four-helix bundle structure. It shares several structural and functional characteristics with IL-6, Oncostatin M, LIF, and Cardiotrophin-1. Human IL-31 cDNA encodes a 164 amino acid precursor that contains a 23 amino acid signal peptide and a 141 amino acid mature protein. Human and mouse IL-31 share 24% sequence identity in the mature region. IL-31 is mainly associated with activated T cells and is preferentially expressed by type 2 helper T cells (Th2). IL-31 signals via a heterodimeric receptor complex composed of a gp130 related molecule termed IL-31RA (also GPL and GLMR) and an Oncostatin M receptor (OSM R $\beta$ ). The IL-31 receptor is constitutively expressed by keratinocytes and upregulated by IFN $\gamma$  on monocytes. 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. Studies have shown that IL31 induces severe pruritis (itching) and dermatitis in transgenic mice.

**Species:**Human

**Reconstitution:**Always centrifuge tubes before opening. Do not mix by vortex or pipetting.It is not recommended to reconstitute to a concentration less than 100  $\mu\text{g/ml}$ .Dissolve the lyophilized protein in ddH<sub>2</sub>O.Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

**Endotoxin:**Less than 0.1 ng/ $\mu\text{g}$  (1 IEU/ $\mu\text{g}$ ) as determined by LAL test.

**Purity:**Greater than 95% as determined by reducing SDS-PAGE.

**Description:**Recombinant Human Interleukin-31 is produced by our E.coli expression system and the target gene encoding Ser24-Thr164 is expressed.

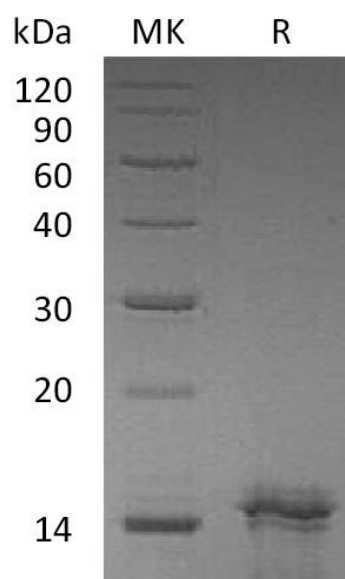
**Product State:**Lyophilized

**Ship Description:**The product is shipped at ambient temperature.

**Formulation:**Lyophilized from a 0.2  $\mu\text{m}$  filtered solution of 20mM PB, 150mM NaCl, pH 7.4.

**Expression system:**E.coli

**For Research Use Only**



Greater than 95% as determined by reducing SDS-PAGE.