

## Recombinant Mouse IL-31 protein(N-His)

Catalog Number: PKSM041477

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

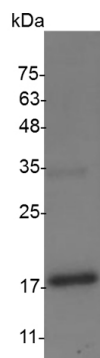
### Description

Species	Mouse
Source	E.coli-derived Mouse IL-31 protein Thr 24-Cys 163, with an C-terminal His
Calculated MW	16.6 kDa
Observed MW	17 kDa
Accession	Q6EAL8
Bio-activity	Not validated for activity

### Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Reconstitution	Please refer to the specific buffer information in the printed manual. Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### 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.