

Recombinant Mouse IL31 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52137

Size: 10ug, 100ug

Protein Name: Interleukin-31 (IL-31)

Synonym: IL31

UniProt ID: Q6EAL8

UniProt Link: www.uniprot.org/uniprotkb/Q6EAL8/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 163 AA

Molecular Weight: 18 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MIFHTGTTKPTLVLLCCIGTWLATCSLSFGAPISKEDLRTTIDLLKQESQDLYNNYSIKQASGMSADESI
QLPCFSLDREALTNISVIIAHLEKVKVLSSENTVDTSWVIRWLNTNISCNPLNLTNISPNTDESVDCKVF
VLTVLKQFSNCMAELQAKDNTTC

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Interleukin-31 (IL-31) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Functions as a cytokine that binds to IL31RA, a membrane-bound signal-transducing subunit of the IL31 receptor complex (heterodimer composed of OSMR and IL31RA) (By similarity). Functionally, IL31 signaling via OSMR/IL31RA is particularly important in skin immunity (PubMed:15184896). Mechanistically, ligand binding to IL31RA, induces heterodimerization with OSMR, activating JAK1 and JAK2 (and to a lesser extent TYK2) associated with the intracellular domains of IL31RA and OSMR. These kinases phosphorylate tyrosine residues on IL31RA and OSMR, creating docking sites for STAT1, STAT3, and STAT5B, which are then phosphorylated and activated. In addition, the IL31 receptor complex activates the MAPK pathway (MAPK3/ERK1-MAPK1/ERK2) via recruitment of the adapter protein SHC1 (By similarity). Enhances myeloid progenitor cell survival in vitro (PubMed:17379091). Induces RETNLA and serum amyloid A protein expression in macrophages (PubMed:25847241).

Subcellular Localization: Secreted .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.