

Recombinant Human IL31 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50524

Size: 10ug, 100ug

Protein Name: Interleukin-31 (IL-31)

Synonym: IL31

UniProt ID: Q6EBC2

UniProt Link: www.uniprot.org/uniprotkb/Q6EBC2/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 164 AA

Molecular Weight: 18 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MASHSGPSTSVLFLFCCLGGWLASHTLPVRLLRPSDDVQKIVEELQSLSKMLLKDVVEEEKGVLVSQN
YTLPLCLSPDAQPPNNIHSPAIRAYLKTIRQLDNKSVIDEIIEHLDKLIFQDAPETNISVPTDTHECKRFILT
ISQQFSECMDLALKSLTSGAQQATT

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) (PubMed:15184896, PubMed:15627637). 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 (PubMed:15627637). These kinases phosphorylate tyrosine residues on IL31RA and OSMR, creating docking sites for STAT1, STAT3, and STAT5B, which are then phosphorylated and activated (PubMed:15184896, PubMed:15627637). In addition, the IL31 receptor complex activates the MAPK pathway (MAPK3/ERK1-MAPK1/ERK2) via recruitment of the adapter protein SHC1 (PubMed:15627637). Enhances myeloid progenitor cell survival in vitro (By similarity). Induces RETNLA and serum amyloid A protein expression in macrophages (By similarity).

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.