

Recombinant Human IL31R Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50525

Size: 10ug, 100ug

Protein Name: Interleukin-31 receptor subunit alpha (IL-31 receptor A) (IL-31 receptor subunit alpha) (IL-31R subunit alpha) (IL-31R-alpha) (IL-31RA) (Cytokine receptor-like 3) (Gp130-like monocyte receptor) (GLM-R) (hGLM-R) (Gp130-like receptor) (GPL) (ZcytoR17)

Synonym: IL31RA, CRL3, GPL, UNQ6368/PRO21073/PRO21384

UniProt ID: Q8NI17

UniProt Link: www.uniprot.org/uniprotkb/Q8NI17/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 732 AA

Molecular Weight: 83 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MMWTWALWMLPSLCKFSLAALPAKPENISCVYYRKNLTCTWSPGKETSYTQYTVKRTYAFGEKH
DNCTTNSSTSENRASCSFFLPRTIPDNYTIEVEAENG DGVIKSHMTYWRL ENIAKTEPPKIFRVKPV L
GIKRM IQIEWIKPE LAPVSSDLKYTLRFRTVNSTSWMEVNF AKNRKDKNQTYNLTGLQPFTEYVIALR
CAVKESKFWSDWSQEKMGMTEEEAPCGLELWRVLKPAEADGRRPVRL L WKKARGAPVLEKTLGY
NIWYYPESNTNLTETMNTTNQQLELHLGGESFWVSMISYNSLGKSPVATLRIPAIQEKS FQCIEVMQA
CVAEDQLVVKWQSSALDVNTWMIEWFPDVDSEPTT LSWESVSQATNWTIQQDKLKPFWCYNISVY
PMLHDKVGEPYSIQAYAKEGVPSEGPETKVENIGVKTVTITWKEIPKSERKGIICNYTIFYQAE G GKG F
SKTVNSSILQYGLES LKRKTSYIVQVMAS TSAGGTNGTSINFKTL SFSVFEIILITSLIGGGLLILITVAY
GLKKPNKLTHLCWPTVPNPAESSIATWHGDDFKDKLNLKESDDSVNTEDRILKPCSTPSDKLVIDKLV
VNFGNVLQEIFTDEARTGQENNLGGEKNGYVTCFPRPDCPLGKSFEELPV SPEIPPRKSQYLRSRM
PEGTRPEAKEQQLFSGQSLVPDHLCEE GAPNPYLKNSVTAREFLVSEKLPEHTKGEV

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 receptor subunit alpha (IL-31 receptor A) (IL-31 receptor subunit alpha) (IL-31R subunit alpha) (IL-31R-alpha) (IL-31RA) (Cytokine receptor-like 3) (Gp130-like monocyte receptor) (GLM-R) (hGLM-R) (Gp130-like receptor) (GPL) (ZcytoR17) 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 membrane-bound signal-transducing subunit of the IL31 receptor complex (heterodimer composed of OSMR and IL31RA) which binds IL31 (PubMed:15184896, PubMed:15194700, PubMed:15627637). Functionally, IL31 signaling via OSMR/IL31RA is particularly important in skin immunity (PubMed:15184896). Mechanistically, ligand binding induces heterodimerization with OSMR, activating JAK1 and JAK2 (and to a lesser extent TYK2) associated with the intracellular domains of IL31RA and OSMR (PubMed:15194700, 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 (Probable) (PubMed:11877449, PubMed:15194700, PubMed:15627637). In addition, the IL31 receptor complex activates the MAPK pathway (MAPK3/ERK1-MAPK1/ERK2) via recruitment of the adapter protein SHC1 (PubMed:15194700, PubMed:15627637). Mediates IL31-induced itch, probably in a manner dependent on cation channels TRPA1 and TRPV1 (By similarity). Positively regulates numbers and cycling status of immature subsets of myeloid progenitor cells in bone marrow in vivo and enhances myeloid progenitor cell survival in vitro (By similarity).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein . Presynaptic cell membrane . Cell projection, axon .

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.