

Recombinant Human IL13 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50491

Size: 10ug, 100ug

Protein Name: Interleukin-13 (IL-13)

Synonym: IL13, NC30

UniProt ID: P35225

UniProt Link: www.uniprot.org/uniprotkb/P35225/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 146 AA

Molecular Weight: 16 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MHPLLNP LLLALGLMALLLT TTVIALTCLGGFASPGPVPPSTALRELIEELVNITQNQKAPLCNGSMVWS
INLTAGMYCAALES LINVSGCSAIEKTQRMLSGFCPHKVSAGQFSSLHVRDTKIEVAQFVKDLLHLK
KLFREGQFN

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-13 (IL-13) 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: Cytokine that plays important roles in allergic inflammation and immune response to parasite infection (PubMed:8096327, PubMed:8097324). Synergizes with IL2 in regulating interferon-gamma synthesis (PubMed:8096327). Stimulates B-cell proliferation, and activation of eosinophils, basophils, and mast cells (PubMed:7903680, PubMed:8759755). Plays an important role in controlling IL33 activity by modulating the production of transmembrane and soluble forms of interleukin-1 receptor-like 1/IL1RL1 (By similarity). Displays the capacity to antagonize Th1-driven proinflammatory immune response and down-regulates synthesis of many proinflammatory cytokines including IL1, IL6, IL10, IL12 and TNF through a mechanism that partially involves suppression of NF-kappa-B (By similarity). Also functions on nonhematopoietic cells, including endothelial cells where it induces vascular cell adhesion protein 1/VCAM1, which is important in the recruitment of eosinophils (PubMed:8639787). Exerts its biological effects through its receptors which comprises the IL4R chain and the IL13RA1 chain, to activate JAK1 and TYK2, leading to the activation of STAT6 (PubMed:9013879). Aside from IL13RA1, another receptor IL13RA2 acts as a high affinity decoy for IL13 and mediates internalization and depletion of extracellular IL13 (PubMed:21622864). Induces inflammatory response in esophageal epithelium which results in a dysregulation of desmosome intercellular adhesion junctions, via down-regulation of DSG1 (PubMed:24220297).

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.