

Recombinant Rat IL13 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52360

Size: 10ug, 100ug

Protein Name: Interleukin-13 (IL-13) (T-cell activation protein P600)

Synonym: Il13, Il-13

UniProt ID: P42203

UniProt Link: www.uniprot.org/uniprotkb/P42203/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 131 AA

Molecular Weight: 14 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MALWVTAVLALACLGLATPGPVRRSTSPVALRELIEELSNITQDQKTSLCNSSMVWSVDLTAGGF
CAALESLTNISSCNAIHRTQRILNGLCNQKASDVASSPPDTKIEVAQFISKLLNYSKQLFRYGH

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) (T-cell activation protein P600) 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:9366558). Synergizes with IL2 in regulating interferon-gamma synthesis. Stimulates B-cell proliferation, and activation of eosinophils, basophils, and mast cells (By similarity). 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 (PubMed:9366558). 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. 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. Aside from IL13RA1, another receptor IL13RA2 acts as a high affinity decoy for IL13 and mediates internalization and depletion of extracellular IL13 (By similarity). Induces inflammatory response in esophageal epithelium which results in a dysregulation of desmosome intercellular adhesion junctions, via down-regulation of DSG1 (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.