

Recombinant Human IL7 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50543

Size: 10ug, 100ug

Protein Name: Interleukin-7 (IL-7)

Synonym: IL7

UniProt ID: P13232

UniProt Link: www.uniprot.org/uniprotkb/P13232/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 177 AA

Molecular Weight: 20 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MFHVSFRYIFGLPPLILVLLPVASSDCDIEGKDGKQYESVLMVSIQQLDSMKEIGSNCLNNEFNFFKR
HICDANKEGMFLFRAARKLRQFLKMNSTGDFDLHLLKVSEGTTILLNCTGQVKGRKPAALGEAQPTK
SLEENKSLKEQKKLNDLCFLKRLQEIKTWCWNKILMGTKEH

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-7 (IL-7) 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: Hematopoietic cytokine that plays an essential role in the development, expansion, and survival of naive and memory T-cells and B-cells thereby regulating the number of mature lymphocytes and maintaining lymphoid homeostasis (PubMed:25870237, PubMed:7527823). Mechanistically, exerts its biological effects through a receptor composed of IL7RA subunit and the cytokine receptor common subunit gamma/CSF2RG (PubMed:8128231). Binding to the receptor leads to activation of various kinases including JAK1 or JAK3 depending on the cell type and subsequently propagation of signals through activation of several downstream signaling pathways including the PI3K/Akt/mTOR or the JAK-STAT5 (PubMed:18523275, PubMed:20974963).

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.