

Recombinant Mouse IL15 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51435

Size: 10ug, 100ug

Protein Name: Interleukin-15 (IL-15)

Synonym: Il15

UniProt ID: P48346

UniProt Link: www.uniprot.org/uniprotkb/P48346/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 162 AA

Molecular Weight: 19 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MKILKPYMRNTSISCYLCFLLNHFLTEAGIHVFI LGCVSVGLPKTEANWIDVRYDLEKIESLIQSIHIDT
TLYTDSDFHPSCCKVTAMNCFLLQLVILHEYSNMTLNETVRNVLYLANSTLSSNKNVAESGCKECEE
LEEKTFTEFLQSFIRIVQMFINTS

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-15 (IL-15) 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 a major role in the development of inflammatory and protective immune responses to microbial invaders and parasites by modulating immune cells of both the innate and adaptive immune systems (PubMed:11466332, PubMed:8757333). Stimulates the proliferation and activation of natural killer cells, T-cells and B-cells and promotes the secretion of several cytokines (PubMed:8757333). In monocytes, induces the production of IL8 and monocyte chemotactic protein 1/CCL2, two chemokines that attract neutrophils and monocytes respectively to sites of infection (By similarity). Unlike most cytokines, which are secreted in soluble form, IL15 is expressed in association with its high affinity IL15RA on the surface of IL15-producing cells and delivers signals to target cells that express IL2RB and IL2RG receptor subunits. Binding to its receptor triggers the phosphorylation of JAK1 and JAK3 and the recruitment and subsequent phosphorylation of signal transducer and activator of transcription-3/STAT3 and STAT5. In mast cells, induces the rapid tyrosine phosphorylation of STAT6 and thereby controls mast cell survival and release of cytokines such as IL4 (PubMed:10882748, PubMed:19632221).

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.