

Recombinant Mouse IL11 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51431

Size: 10ug, 100ug

Protein Name: Interleukin-11 (IL-11)

Synonym: Il11

UniProt ID: P47873

UniProt Link: www.uniprot.org/uniprotkb/P47873/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 199 AA

Molecular Weight: 22 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MNCVCRLVLVVLVSLWPDRVVAPGPPAGSPRVSSDPRADLDSAVLLTRSLADTRQLAAQMRDKFPA
DGDHSLDSLPTLAMSAGTLGSLQLPGVLTRLRVDLMSYLRHVQWLRRAAGGPSLKTLEPELGALQAR
LERLLRRLQLLMSRLALPQAAPDQPVIPGLPPASAWGSIRAAHAILGGLHLTLDWAVRGLLLLKTRL

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-11 (IL-11) 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 stimulates the proliferation of hematopoietic stem cells and megakaryocyte progenitor cells and induces megakaryocyte maturation resulting in increased platelet production (PubMed:8913282). Also promotes the proliferation of hepatocytes in response to liver damage (PubMed:22253262). Binding to its receptor formed by IL6ST and either IL11RA1 or IL11RA2 activates a signaling cascade that promotes cell proliferation, also in the context of various cancers (PubMed:10026196, PubMed:23948300). Signaling leads to the activation of intracellular protein kinases and the phosphorylation of STAT3 (PubMed:22253262, PubMed:23948300). The interaction with the membrane-bound IL11RA and IL6ST stimulates 'classic signaling', whereas the binding of IL11 and soluble IL11RA to IL6ST stimulates 'trans-signaling' (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.