

Recombinant Rat IL11 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52712

Size: 10ug, 100ug

Protein Name: Interleukin-11 (IL-11)

Synonym: IL11

UniProt ID: Q99MF5

UniProt Link: www.uniprot.org/uniprotkb/Q99MF5/entry

Species Source: Rat

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
DGDHNLDSLPTLAMSAGTLGSLQLPGVLTRLRVLDMSYFRHVQWLRRAAGPSLKTLEPELGALQAR
LERLLRRLQLLMSRLALPQAAPDQPAVPLGPPASAWGSIRAAHAILGGLHLTDWAVRGLLLLKTRL

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. Also promotes the proliferation of hepatocytes in response to liver damage. Binding to its receptor formed by IL6ST and IL11RA activates a signaling cascade that promotes cell proliferation. Signaling leads to the activation of intracellular protein kinases and the phosphorylation of STAT3. 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'.

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.