

Recombinant Mouse CRLF1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51943

Size: 10ug, 100ug

Protein Name: Cytokine receptor-like factor 1 (Cytokine receptor-like molecule 3) (CRLM-3) (Cytokine-like factor 1) (CLF-1) (Novel cytokine receptor 6) (NR6)

Synonym: Crlf1, Crlm3

UniProt ID: Q9JM58

UniProt Link: www.uniprot.org/uniprotkb/Q9JM58/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 425 AA

Molecular Weight: 47 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MPAGRPGPVAQSARRPPRPLSSLWSPLLLCVLGVPARGGSGAHTAVIS PQDPTLLIGSSLQATCSIHG
DTPGATAEGLYWTLNRRPLSELSRLLNTSTLALALANLNGSRQQSGDNLVCHARDGSILAGSCLYV
GLPPEKPFNISCWSRNMKDLTCRWTPGAHGETFLHTNYSKYKLRWYGQDNTCEEYHTVGPHSCH
IPKDLALFTPYEIWVEATNRLGSARSDVLTLDVLDVVTDPDPDVHVS RVGGLEDQLSVRWVSPPAL
KDFLFQAKYQIRYVEDSDWKVVDVSNQTSCRLAGLKPGTVYFVQVRCNPF GIYGSKKAGIWSE
WSHPTAASTPRSERPGPGGGVCEPRGGEPSSGPVRRELKQFLGWLKKHAYCSNLSFRLYDQWRA
WMQKSHKTRNQDEGILPSGRRGAARGPAG

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 Cytokine receptor-like factor 1 (Cytokine receptor-like molecule 3) (CRLM-3) (Cytokine-like factor 1) (CLF-1) (Novel cytokine receptor 6) (NR6) 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: Functions as secretory protein carrier chaperone that promotes cellular release. Also functions as a cytokine subunit within the CRLF1-CLCF1 heterodimer, which engages the CNTF receptor complex (CNTFR, IL6ST/gp130, LIFR). As part of the CRLF-CLCF1 complex, binds to CNTFR, induces dimerization of the IL6ST/gp130 and LIFR, which activates JAK tyrosine kinases (JAK1 or JAK2 and to lesser extent TYK2) bound to their intracellular domains. These kinases subsequently phosphorylate IL6ST/gp130 and LIFR. The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of signal transducer and activators of transcription (STAT3 and to lesser extent STAT1). Moreover, CLCF1/CLF heterodimer induces tyrosine phosphorylation of PTPN11, that associates with IL6ST/gp130-LIFR, which in turn recruits PIK3 protein kinase followed by AKT protein phosphorylation. Participates in the survival of embryonic motor neurons. May also play a regulatory role in the immune system.

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.