

Recombinant Mouse IL18 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51499

Size: 10ug, 100ug

Protein Name: Interleukin-18 (IL-18) (Interferon gamma-inducing factor) (IFN-gamma-inducing factor) (Interleukin-1 gamma) (IL-1 gamma)

Synonym: Il18, Igif

UniProt ID: P70380

UniProt Link: www.uniprot.org/uniprotkb/P70380/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 192 AA

Molecular Weight: 22 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAAMSEDSVCVNFKEMMFIDNTLYFIPEENGDLSDNFGRLHCTTAVIRNINDQVLFVDKRQPVFEDM
TDIDQSASEPQTRLIIYMYKDSEVRGLAVTLVKDSKMSTLSCKNKIISFEEMDPPENIDDIQSDLIFFQ
KRVPGHNKMEFESSLYEGHFLACQKEDDAFKLILKKKDENGDKSVMFTLTNLHQS

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-18 (IL-18) (Interferon gamma-inducing factor) (IFN-gamma-inducing factor) (Interleukin-1 gamma) (IL-1 gamma) 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: Pro-inflammatory cytokine primarily involved in epithelial barrier repair, polarized T-helper 1 (Th1) cell and natural killer (NK) cell immune responses (PubMed:26638072, PubMed:26638073). Upon binding to IL18R1 and IL18RAP, forms a signaling ternary complex which activates NF-kappa-B, triggering synthesis of inflammatory mediators (By similarity). Synergizes with IL12/interleukin-12 to induce IFNG synthesis from T-helper 1 (Th1) cells and natural killer (NK) cells (By similarity). Involved in transduction of inflammation downstream of pyroptosis: its mature form is specifically released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:30392956).

Subcellular Localization: Cytoplasm . Secreted . Note=The precursor is cytosolic (By similarity). In response to inflammasome-activating signals, cleaved and secreted (By similarity). Mature form is secreted and released in the extracellular milieu by passing through the gasdermin-D (GSDMD) pore (PubMed:30392956). In contrast, the precursor form is not released, due to the presence of an acidic region that is proteolytically removed by CASP1 during maturation (By similarity). The secretion is dependent on protein unfolding and facilitated by the cargo receptor TMED10 (By similarity).

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.