

Recombinant Rat GIMA5 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52551

Size: 10ug, 100ug

Protein Name: GTPase IMAP family member 5 (Immunity-associated nucleotide 4 protein) (IAN-4) (Immunity-associated nucleotide 4-like 1 protein)

Synonym: Gimap5, Ian4, Ian4l1, Iddm1, Lyp

UniProt ID: Q8K3L6

UniProt Link: www.uniprot.org/uniprotkb/Q8K3L6/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 326 AA

Molecular Weight: 37 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MEDHGFEELSTRTHDLNVRRLTKGNINLLSTGQETYSVEDSGLLRILLVGKSGCGKSATGNSILRRP
AFESRLRGQSVTRTSQAEMGTWEGRSFLVVDTPPIFESKIQNQDMDKDIGNCYLMCAPGPHVLLLV
TQLGRYTVEDAMAVRMVKQIFGVGVMRYMIVLFTHKEDLADESLEEFVTHGTGNLDLHRLVQECGRR
YCAFNKASGEEQQGQLAELMALVRRLEQEHEGSFHSNDLFVYTQVFLRGGYSEHQEPYKFYLT
VRQVEKQKRELEEQEGSWMAKMLCRVTSCLDWHIAVSVLLIVLGLTLLITLINMYIGRWK

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 GTPase IMAP family member 5 (Immunity-associated nucleotide 4 protein) (IAN-4) (Immunity-associated nucleotide 4-like 1 protein) 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: Required for mitochondrial integrity and T-cell survival. May contribute to T-cell quiescence.; Plays a role in T lymphocyte development and the optimal generation of CD4/CD8 double-positive thymocytes (By similarity). Inhibitor of GSK3A, possibly by sequestering GSK3A in cytoplasmic vesicles and impairing its translocation to the nucleus. Consequently, impairs GSK3A-dependent transcriptional program and regulation of the DNA damage response occurring during T cells proliferation (By similarity). Required for the survival of peripheral T cells, natural killer (NK) and NK T-cell development and the maintenance of normal liver function (By similarity). Promotes the survival of quiescent T-cells (PubMed:15307172). May regulate Ca(2+) homeostasis by modulating lysosomal Ca(2+) stores, preventing its accumulation in the absence of T cell activation (PubMed:28223986). May play a role in mitochondrial DNA segregation in hematopoietic tissues (By similarity). Is a regulator of liver endothelial cell homeostasis (By similarity).

Subcellular Localization: Lysosome membrane ; Single-pass type IV membrane protein . Endosome, multivesicular body membrane ; Single-pass type IV membrane protein . Endosome membrane ; Single-pass type IV membrane protein .

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.