

Recombinant Mouse IRGM2 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51103

Size: 10ug, 100ug

Protein Name: Immunity-related GTPase family M protein 2 (EC 3.6.5.-) (Interferon-inducible GTPase 2)

Synonym: Irgm2, ligp2

UniProt ID: A0A140LIF8

UniProt Link: www.uniprot.org/uniprotkb/A0A140LIF8/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 395 AA

Molecular Weight: 45 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MEEAVESPEVKEFEYFSDAVFIPKDGNTLSVGVIKRIETAVKEGEVVKVVSIVKEIIQNVS RNKIKIAVT
GDSGNGMSSFINALRLIGHEEKDSAPTGVVRTTQKPTCYFSSHFPYVELWDLPGLGATAQSVESYLE
EMQISYDLIIIVASEQFSLNHVKLAITMQRMKRKYVWTKLDRDLSTSTFPEPQLQSIQRNIRDSLQ
KEKVKEHPMFLVSVFKPESHDFPKLRETLQKDLPIKYHGLVETLYQVCEKTVNERVESIKKSIDEDN
LHTEFGISDPGNAIEIRKAFQKTFGLDDISLHLVALEMKNKHFNTSMESQETQRYQQDDWVLARLYRT
GTRVGSIGFDYMKCCFTSHHSRCKQQKDILDETAAKAKEVLLKILRLSIPHP

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 Immunity-related GTPase family M protein 2 (EC 3.6.5.-) (Interferon-inducible GTPase 2) 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: Immunity-related GTPase that plays important roles in innate immunity and inflammatory response (PubMed:17641048, PubMed:33124745, PubMed:33124769, PubMed:34078740, PubMed:34338548). Acts as a dynamin-like protein that binds to intracellular membranes and promotes remodeling and trafficking of those membranes (By similarity). Required for clearance of acute protozoan and bacterial infections (PubMed:17641048, PubMed:34078740, PubMed:34338548). Acts by participating to Tgtp1/Irgb6 and Gbp1-mediated parasite killing by promoting their accumulation on the T.gondii parasitophorous vacuole membranes (PubMed:34078740). Also required for prolonged loading of ubiquitin and p62/Sqstm1 to parasitophorous vacuole membranes (PubMed:34078740). Also acts as a key negative regulator of the inflammatory response by inhibiting the non-canonical inflammasome, thereby protecting against Casp11-driven septic shock during endotoxemia (PubMed:33124745, PubMed:33124769).

Subcellular Localization: Cytoplasmic vesicle membrane . Golgi apparatus membrane . Cytoplasm, cytosol . Note=Localizes to parasitophorous vacuole membranes.

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.