

Recombinant Mouse IIGP1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51964

Size: 10ug, 100ug

Protein Name: Interferon-inducible GTPase 1 (EC 3.6.5.-)

Synonym: ligp1, Irga6

UniProt ID: Q9QZ85

UniProt Link: www.uniprot.org/uniprotkb/Q9QZ85/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 413 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGQLFSSPKSDENNDLPSSFTGYFKKFNTGRKIISQEILNLIELMRKGNILQNTNSAISDALKEIDSSVL
NVAVTGETGSGKSSFINTLRGIGNEEEGAAGTGVVEVTMERHPYKHPNIPNVVFWDLPGIGSTNFPP
NTYLEKMKFYEYDFIIISATRFKKNIDIDIAKAISMMKKEFYFVRTKVDSITNEADGKPQTFDKEKVLQ
DIRLNCVNTFRENGIAEPPIFLLSNKNVCHYDFPVLMDKLISDLPIYKRHNFMVSLPNITDSVIEKKRQF
LKQRIWLEGFAADLVNIIPSLTFLDSDLETLLKSMKFYRTVFGVDETSLQRLARDWEIEVDQVEAMIK
SPAVFKPTDEETIQUERLSRYIQEFCLANGYLLPKNSFLKEIFYLKYYFLDMVTEDAKTLLKEICLRN

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 Interferon-inducible GTPase 1 (EC 3.6.5.-) 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: GTPase with low activity (PubMed:12732635). Has higher affinity for GDP than for GTP (PubMed:12732635). Plays a role in resistance to intracellular pathogens (PubMed:11907101). During infection with avirulent *Toxoplasma gondii* strains, recruited to the parasitophorous vacuole membrane (PubMed:24324375, PubMed:24390541, PubMed:22802726, PubMed:21203588). Required for disruption of the parasitophorous vacuole formed following *T.gondii* infection and subsequent killing of the parasite (PubMed:16304607). Mediates resistance to *Chlamydia trachomatis* infection by targeting bacterial inclusions to autophagosomes for subsequent lysosomal destruction (PubMed:19242543).

Subcellular Localization: Cytoplasm. Nucleus membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein. Golgi apparatus, Golgi stack membrane; Peripheral membrane protein. Parasitophorous vacuole membrane. Note=Localizes to the bacterial inclusions formed following *C.trachomatis* infection. Accumulates in a GTP-bound form on the parasitophorous vacuole membranes formed following *T.gondii* infection but exists in a GDP-bound form in uninfected cells.; Parasitophorous vacuole membrane; Peripheral membrane protein . Note=(Microbial infection).

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.