

Recombinant Rat P85A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52510

Size: 10ug, 100ug

Protein Name: Phosphatidylinositol 3-kinase regulatory subunit alpha (PI3-kinase regulatory subunit alpha) (PI3K regulatory subunit alpha) (PtdIns-3-kinase regulatory subunit alpha) (Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha) (PI3-kinase subunit p85-alpha) (PtdIns-3-kinase regulatory subunit p85-alpha)

Synonym: Pik3r1

UniProt ID: Q63787

UniProt Link: www.uniprot.org/uniprotkb/Q63787/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 724 AA

Molecular Weight: 84 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSAEGYQYRALYDYKKEREEDIDLHLGDILTVNKGSLVALGFSDGQEARPEDIGWLNNGYNETTGER
GDFPGTYVEYIGRKRISSPTPKPRPPRPLPVAPGSSKTEADTEQPVLTLPDLAEQFAPPDVAPPLLIK
LEAIEKKGLECSTLYRTQSSSNPAELRQLLD CDPPSVLDVDFDEHVLADAFKRYLADLPNPVIPVAVY
NEMMSLAQEVPSSEDIQLLKKLIRSPNIPHQYWLTLQYLLKHFFKLSQASSKNLLNARALSEIFSHVL
FRFPAASSDNTEHLIKAVELLISAEWSERQPAPALPPKPPKPTSIANNMNNMNSLQDAEWYWGDIS
REEVNEKL RDTADGTFLVRDASTKMHGDYTLTLRKGGNNKLIKIFHRDGKYGFSDPLTFNSVVELINH
YRNESLAQYNPKLDVKLLYPVSKYQQDQVVKEDNIEAVGKKLHEYNTQFQEK SREYDRLYEETRT
SQEI QMKRTAIEAFNDTIKIFEEQCHPQERYSKDYIEKFKREGNEKEIQRIMHNHDKLKSRISEIIDSRR
RLEEDLKKQAAEYREIDKRMNSIKPDLIQLRKTRDQYLMWLTQKGV RQKKLNEWLGNENTEDQYSL
VDDDEDLP HHDEKTWNVGSSNRNKAENLLRGKRDGTFLVRESSKQGCYACSVVVDGEVKHCVINK
TATGYGFAEPYNLYSSLKELVLHYQHTSLVQHND SLNVTLAYPVYAQQRR

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 Phosphatidylinositol 3-kinase regulatory subunit alpha (PI3-kinase regulatory subunit alpha) (PI3K regulatory subunit alpha) (PtdIns-3-kinase regulatory subunit alpha) (Phosphatidylinositol 3-kinase 85 kDa regulatory subunit alpha) (PI3-kinase subunit p85-alpha) (PtdIns-3-kinase regulatory subunit p85-alpha) 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: Binds to activated (phosphorylated) protein-Tyr kinases, through its SH2 domain, and acts as an adapter, mediating the association of the p110 catalytic unit to the plasma membrane. Necessary for the insulin-stimulated increase in glucose uptake and glycogen synthesis in insulin-sensitive tissues. Plays an important role in signaling in response to FGFR1, FGFR2, FGFR3, FGFR4, KITLG/SCF, KIT, PDGFRA and PDGFRB. Likewise, plays a role in ITGB2 signaling. Modulates the cellular response to ER stress by promoting nuclear translocation of XBP1 in a ER stress- and/or insulin-dependent manner during metabolic overloading in the liver and hence plays a role in glucose tolerance improvement (By similarity).

Subcellular Localization: Cytoplasm .

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.