

Recombinant Mouse IQGA1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51933

Size: 10ug, 100ug

Protein Name: Ras GTPase-activating-like protein IQGAP1

Synonym: Iqgap1

UniProt ID: Q9JKF1

UniProt Link: www.uniprot.org/uniprotkb/Q9JKF1/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1657 AA

Molecular Weight: 189 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MSAAEEVDGLGVVRPHYGSVLDNERLTAEEMDERRRRQNVAYEYLCHLEEAKRWMEACLGEDLPPT
TELEEGLRNGVYLAKLGNFFSPKVVSLKKIYDREQTRYKATGLHFRHTDNVIQWLNAMDEIGLPKIFY
PETTDIYDRKNMPCRCIYCIHALSLYLFKLGLAPQIQDLYGKVDFTREEINNMKIELEKYGIQMPAFSKIG
GILANELSVDEAALHAAVIAINEAIDRRVAADTFTALKNPNAMLVNLEEGLAPTYQDVLQYQAKQDKMT
NAKNRTENS DRERDVYEELLTQAEIQGNVNKVNTSSALANISLALEQGCAVTLLKALQSLALGLRGLQ
TQNSDWYMKQLQSDLQKQKQSGQTDPLQKEEVQAGVDAANSAAQQYQRRLAAVAANAAIQKGIA
EKTVLELMNPEAQLPQVYPFAADLYQKELATLQQQSPEHSLTHPELTVAVEMLSVALINRALES
MTTVWKQLSSSVTGLTNIEEENCQRYLDELMLKKAQAHAEENAFITWNDIQACVDHVNLVVHEEHE
RILAIGLINEALDEGDAQKTLQALQIPAAKLEGVLAQHYQDTLIRAKREKAQETQDES AVLWLDEI
QGGIWQSNKDTQEAQR FALGIS AINEAVDSGDVGRTLSALRSPDVGLYGVIEPCGETYQSDLA EAKK
KRLAAGDNNSKWKHWVKGGYHYHYNLETQAGGWAEPDFVQNSVQLSREEIQSSISGVTAAAYNR
EQLWLANEGLITKLQACCRGYLVVRQEFRSRMNFLKKQIPAITCIQSQWRGYKQKKAYQDRLAYLHSH
KDEVVKIQSLARMHQARKRYRDRQLQYFRDHINDI IKIQA FIRANKARDDYKTLINAEDPPMIVVRKFVH
LLDQSDQDFQEELDLMKMREEVITLIRSNQQLENDLNLMDIKIGLLVKNKITLQD VVSHSKKLT KKNKE
QLSDMMINKQKGGKALSKEKREKLEAYQHLYLLQTNPTYLAKLIFQMPQNKSTKFMDSVIFTLYN
YASNQREEYLLRLFTALQEEIKSKVDQIQEIVTGNPTVIKMOVVSFNRGARGQNALRQILAPVVKEIM
DDKSLNIKTDPVDIYKSWVNQMESQTGEASKLPYDVTPEQALSHEEVKTRLDNSIRNMRAVTDKFLS
AIVSSVDKIPYGMRFIAKVLKDSLHEKFPDAGEDELLKIIGNLLYYRYMNP AIVAPDAFDIIDLSAGGQLT
TDQRRNLGSIKMLQHAASNKMFLGDNAHLSIINEYLSQSYQKFRRFFQVACDVPELQDKFNVDEYS



DLVTLTKPVIYISIGEIIINTHTLLLDHQDAIAPEHNDPIHELLDDLGEVPTIESLIGESCGNSNDPNKEALA
KTEVSLTLTNKFDVPGDENAEMDARTILLNTKRLIVDVIRFQPGETLTEILETPATNEQEAEHQRAMQ
RRAIRDAKTPDKMKKSKPMKEDNNLSLQEKKEKIQTGLKKLTELGTVDPKNRYQELINDIAKDIRNQR
RYRQRRKAELVKLQQTYALSNSKATFYGEQVDYYKSYIKTCLDNLASKGKVSKKPREMKGKKSKKIS
LKYTAARLHEKGVLLIEDLQANQFKNVIFEIGPTEEVGDFEVKAKFMGVQMETFMLHYQDLLQLQYE
GVAVMKLFDRAKVNVNLLIFLLNKKFYGK

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 Ras GTPase-activating-like protein IQGAP1 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: Plays a crucial role in regulating the dynamics and assembly of the actin cytoskeleton. Recruited to the cell cortex by interaction with ILK which allows it to cooperate with its effector DIAPH1 to locally stabilize microtubules and allow stable insertion of caveolae into the plasma membrane (PubMed:20951348). Binds to activated CDC42 but does not stimulate its GTPase activity (PubMed:16968698). Associates with calmodulin. May promote neurite outgrowth. May play a possible role in cell cycle regulation by contributing to cell cycle progression after DNA replication arrest.

Subcellular Localization: Cell membrane . Nucleus . Cytoplasm . Cytoplasm, cell cortex . Apical cell membrane . Basolateral cell membrane . Note=Subcellular distribution is regulated by the cell cycle, nuclear levels increase at G1/S phase (PubMed:20883816).

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.