

Recombinant Mouse DP13A Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51779

Size: 10ug, 100ug

Protein Name: DCC-interacting protein 13-alpha (Dip13-alpha) (Adapter protein containing PH domain, PTB domain and leucine zipper motif 1)

Synonym: Appl1, Dip13a, Kiaa1428

UniProt ID: Q8K3H0

UniProt Link: www.uniprot.org/uniprotkb/Q8K3H0/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 707 AA

Molecular Weight: 79 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MPGIDKLPHEETLEDSPQTRSLLGVFEEDATAISNYMNQLYQAMHRIYDAQNELSAATHLTSKLLKEY
EKQRFPLGGDDEVMSSTLQQFSKVIDELSSCHAVLSTQLADAMMFPI SQFKERDLKEILTLKEVFQIA
SNDHDAAINRYSRLSKKRENDKVKEYETEDVYTSRKKQHQTMMHYFCALNTLQYKKKIALLEPLLGY
MQAQISFFKMGSENNGQLEEFLANIGTSVQNVREMDGDVETMQQTIEDLEVASDPLYLPDPDPT
KFPINRNLTRKAGYLNARNKTGLVSSTWDRQFYFTQGGNLM SQARGDVAGGLAMDIDNC SVMAVD
CEDRRYCFQITSFDGKKSSILQAESKKDHEEWICTINNISKQIYLS ENPEETAARVNQSALEAVTPSPS
FQQRHESLRPGGQSRPPTARTSSSGSLGSESTNLAALSLDSL VAPDTPIQFDIISPVCEDQPGQAKA
FGQGGRRTPNPFGESGGSTKSETEDSILHQLFIVRFLGSMEVKSD DHPDVVYETMRQILAARAIHNIFR
MTESHLVTCDCCLKLIDPQTQVTRLTFPLPCVVL YATHQENKRLFGFVLR TSGGRSESNLSSVCYIFE
SNNEGEKICDSVGLAKQIALHAELDRRASEKQKEIERVKEKQQKELSKQKQIEKDLEEQSR LIAASSR
PNQAGSEGQLVLSSSQSEESDLGEEGKKRESEA

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 DCC-interacting protein 13-alpha (Dip13-alpha) (Adapter protein containing PH domain, PTB domain and leucine zipper motif 1) 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: Multifunctional adapter protein that binds to various membrane receptors, nuclear factors and signaling proteins to regulate many processes, such as cell proliferation, immune response, endosomal trafficking and cell metabolism (By similarity) (PubMed:25328665, PubMed:25568335, PubMed:27219021). Regulates signaling pathway leading to cell proliferation through interaction with RAB5A and subunits of the NuRD/MeCP1 complex (By similarity). Functions as a positive regulator of innate immune response via activation of AKT1 signaling pathway by forming a complex with APPL1 and PIK3R1 (PubMed:25328665). Inhibits Fc-gamma receptor-mediated phagocytosis through PI3K/Akt signaling in macrophages (PubMed:25568335). Regulates TLR4 signaling in activated macrophages (PubMed:27219021). Involved in trafficking of the TGFBR1 from the endosomes to the nucleus via microtubules in a TRAF6-dependent manner. Plays a role in cell metabolism by regulating adiponectin and insulin signaling pathways (By similarity). Required for fibroblast migration through HGF cell signaling (PubMed:26445298). Positive regulator of beta-catenin/TCF-dependent transcription through direct interaction with RUVBL2/reptin resulting in the relief of RUVBL2-mediated repression of beta-catenin/TCF target genes by modulating the interactions within the beta-catenin-reptin-HDAC complex (By similarity).

Subcellular Localization: Early endosome membrane ; Peripheral membrane protein . Nucleus . Cytoplasm . Endosome . Cell projection, ruffle . Cytoplasmic vesicle, phagosome . Note=Early endosomal membrane-bound and nuclear. Translocated into the nucleus upon release from endosomal membranes following internalization of EGF.

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.