

Recombinant Mouse CIDEA Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51180

Size: 10ug, 100ug

Protein Name: Lipid transferase CIDEA (Cell death activator CIDE-A) (Cell death-inducing DFFA-like effector A)

Synonym: Cidea

UniProt ID: O70302

UniProt Link: www.uniprot.org/uniprotkb/O70302/entry

Species Source: Mouse

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 217 AA

Molecular Weight: 25 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

METARDYAGALIRPLTFMGLQTKKVLLTPLIHPARPFVRVSNHDRSSRRGVMASSLQELISKTLVDLVIT
TGLVTLVLEEDGTVDTEEFFQTLRDNTHFMILEKGQKWTPGSKYVPVCKQPKKSGIARVTFDLYRL
NPKDFLGCLNVKATMYEMYSVSYDIRCTSFKAVLRNLLRFMSYAAQMTGQFLVYAGTYMLRVLGDT
EEQPSPKPSTKGWFM

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 Lipid transferase CIDEA (Cell death activator CIDE-A) (Cell death-inducing DFFA-like effector A) 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: Lipid transferase that promotes unilocular lipid droplet formation by mediating lipid droplet fusion (PubMed:18509062, PubMed:22144693, PubMed:26609809, PubMed:36477540). Lipid droplet fusion promotes their enlargement, restricting lipolysis and favoring lipid storage (PubMed:18509062, PubMed:22144693, PubMed:26609809). Localizes on the lipid droplet surface, at focal contact sites between lipid droplets, and mediates atypical lipid droplet fusion by promoting directional net neutral lipid transfer from the smaller to larger lipid droplets (PubMed:18509062, PubMed:22144693, PubMed:26609809). The transfer direction may be driven by the internal pressure difference between the contacting lipid droplet pair and occurs at a lower rate than that promoted by CIDEC (PubMed:18509062, PubMed:22144693). May also act as a CEBPB coactivator in epithelial cells to control the expression of a subset of CEBPB downstream target genes, including ID2, IGF1, PRLR, SOCS1, SOCS3, XDH, but not casein (PubMed:22245780). By interacting with CEBPB, strengthens the association of CEBPB with the XDH promoter, increases histone acetylation and dissociates HDAC1 from the promoter (PubMed:22245780). When overexpressed, induces apoptosis; the physiological significance of its role in apoptosis is unclear (PubMed:9564035).

Subcellular Localization: Lipid droplet . Nucleus . Note=Enriched at lipid droplet contact sites (PubMed:18509062, PubMed:22144693). Using a GFP-tagged construct, has been shown to localize to mitochondria, where it could interact with UCP1 and hence inhibit UCP1 uncoupling activity (PubMed:12910269). These data could not be confirmed (PubMed:18509062, PubMed:22245780).

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.