

Recombinant Rat ARH Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52185

Size: 10ug, 100ug

Protein Name: Low density lipoprotein receptor adapter protein 1 (Autosomal recessive hypercholesterolemia protein homolog)

Synonym: Ldlrap1, Arh

UniProt ID: D3ZAR1

UniProt Link: www.uniprot.org/uniprotkb/D3ZAR1/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 306 AA

Molecular Weight: 34 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MDALKSAGRALIRSPSLAKQSWAGGRHRKLPENWTDRETLLGEMVFSCLKYLGMTLVERPKGEELS
AAAVKRIVATAKASGKKLQKVTCLKVSPRGIILTDSLTSQLIENVSIYRISYCTAQMHDKVFAYIAQSQQN
ESLECHAFLECTKRKVAQAVTLTVAQAFKVAFEFWQVSKEEKEKREKANQEGGDVPGTRRDSTPSLK
TSVATGNLLDLEELAKAPLSTVSANTKNMDDALRPQVLGNNSVWELDDGLDEAFSRLAQSRTNPQ
VLDTGLTAQDIHYAQCLSPTDWDKPDSSGFDQDDVFSF

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 Low density lipoprotein receptor adapter protein 1 (Autosomal recessive hypercholesterolemia protein homolog) 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: Adapter protein (clathrin-associated sorting protein (CLASP)) required for efficient endocytosis of the LDL receptor (LDLR) in polarized cells such as hepatocytes and lymphocytes, but not in non-polarized cells (fibroblasts). May be required for LDL binding and internalization but not for receptor clustering in coated pits. May facilitate the endocytosis of LDLR and LDLR-LDL complexes from coated pits by stabilizing the interaction between the receptor and the structural components of the pits. May also be involved in the internalization of other LDLR family members. Binds to phosphoinositides, which regulate clathrin bud assembly at the cell surface (By similarity). Required for trafficking of LRP2 to the endocytic recycling compartment which is necessary for LRP2 proteolysis, releasing a tail fragment which translocates to the nucleus and mediates transcriptional repression (PubMed:23836931).

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.