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ARH (LDLRAP1) Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8013a

Product Information

Application	WB, IHC-P, E
Primary Accession	Q5SW96
Other Accession	Q8C142
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB12630
Calculated MW	33885
Antigen Region	11-42

Additional Information

Gene ID	26119
Other Names	Low density lipoprotein receptor adapter protein 1, Autosomal recessive hypercholesterolemia protein, LDLRAP1, ARH
Target/Specificity	This ARH (LDLRAP1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 11-42 amino acids from the N-terminal region of human ARH (LDLRAP1).
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ARH (LDLRAP1) Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	LDLRAP1 (HGNC:18640)
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. 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 (By similarity).
Cellular Location	Cytoplasm.
Tissue Location	Expressed at high levels in the kidney, liver, and placenta, with lower levels detectable in brain, heart, muscle, colon, spleen, intestine, lung, and leukocytes

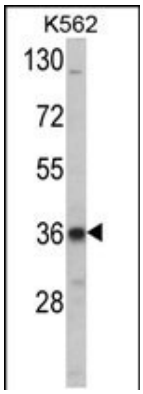
Background

LDLRAP1 is a cytosolic protein which contains a phosphotyrosine binding (PTD) domain. The PTD domain has been found to interact with the cytoplasmic tail of the LDL receptor. This adapter protein is required for efficient endocytosis of the LDL receptor (LDLR) in polarized cells such as hepatocytes and lymphocytes, but not in non-polarized cells (fibroblasts). LDLRAP1 may be required for LDL binding and internalization but not for receptor clustering in coated pits. This protein may facilitate the endocytocis of LDLR and LDLR-LDL complexes from coated pits by stabilizing the interaction between the receptor and the structural components of the pits, and may also be involved in the internalization of other LDLR family members. Mutations in the LDLRAP1 gene lead to LDL receptor malfunction and cause the disorder autosomal recessive hypercholesterolaemia.

References

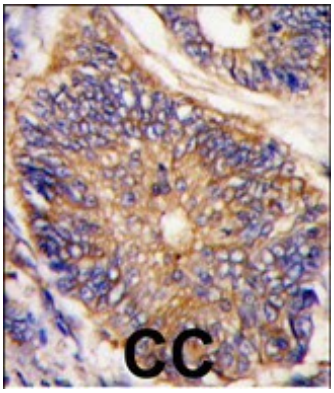
Maurer,M.E., J. Cell. Sci. 119 (PT 20), 4235-4246 (2006)
Keyel,P.A., Mol. Biol. Cell 17 (10), 4300-4317 (2006)

Images



Western blot analysis of LDLRAP1 Antibody (N-term) (Cat. #AP8013a) in K562 cell line lysates (35ug/lane). LDLRAP1 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human colon carcinoma tissue reacted with LDLRAP1 antibody (N-term) (Cat.#AP8013a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



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