ARH (T-19): sc-26734

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BACKGROUND

ARH (autosomal recessive hypercholesterolemia protein), also known as LDLRAP1 (low density lipoprotein receptor adapter protein 1), is a 308 amino acid cytoplasmic protein that contains one PID domain. ARH is an adapter protein required for efficient endocytosis of the LDL receptor (LDLR) from coated pits in polarized cells such as hepatocytes and lymphocytes. To do this, ARH acts to stabilize the interaction between the receptor and the structural components of the pits. While expressed at high levels in kidney, liver and placenta, ARH is expressed at low levels in brain, heart, muscle, colon, spleen, intestine, lung and leukocytes. Defects in the ARH gene are the cause of autosomal recessive hypercholesterolemia, a disorder caused by defective internalization of LDL receptors (LDLR) in the liver. Autosomal recessive hypercholesterolemia has the clinical features of familial hyper-cholesterolemia (FH), including severely elevated plasma LDL cholesterol, tuberous and tendon xanthomata, and premature atherosclerosis.

REFERENCES

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3. Al-Kateb, H., et al. 2002. Mutation in the ARH gene and a chromosome 13q locus influence cholesterol levels in a new form of digenic-recessive familial hypercholesterolemia. Circ. Res. 90: 951-958.

4. Wilund, K.R., et al. 2002. Molecular mechanisms of autosomal recessive hypercholesterolemia. Hum. Mol. Genet. 11: 3019-3030.

5. He, G., et al. 2002. ARH is a modular adaptor protein that interacts with the LDL receptor, clathrin, and AP-2. J. Biol. Chem. 277: 44044-44049.

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7. Mishra, S.K., et al. 2005. Functional dissection of an AP-2 β2 appendage-binding sequence within the autosomal recessive hypercholesterolemia protein. J. Biol. Chem. 280: 19270-19280.

8. Sirinian, M.I., et al. 2005. Adaptor protein ARH is recruited to the plasma membrane by low density lipoprotein (LDL) binding and modulates endocy-tosis of the LDL/LDL receptor complex in hepatocytes. J. Biol. Chem. 280: 38416-38423.

CHROMOSOMAL LOCATION

Genetic locus: LDLRAP1 (human) mapping to 1p36.11; Ldlrap1 (mouse) mapping to 4 D3.

SOURCE

ARH (T-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ARH of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-26734 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARH (T-19) is recommended for detection of ARH of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ARH (T-19) is also recommended for detection of ARH in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ARH siRNA (h): sc-106784, ARH siRNA (m): sc-141195, ARH shRNA Plasmid (h): sc-106784-SH, ARH shRNA Plasmid (m): sc-141195-SH, ARH shRNA (h) Lentiviral Particles: sc-106784-V and ARH shRNA (m) Lentiviral Particles: sc-141195-V.
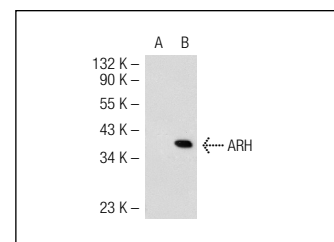
Molecular Weight of ARH: 35 kDa.

Positive Controls: ARH (m): 293T Lysate: sc-124988, ARH (h): 293T Lysate: sc-114378 or HeLa nuclear extract: sc-2120.

DATA
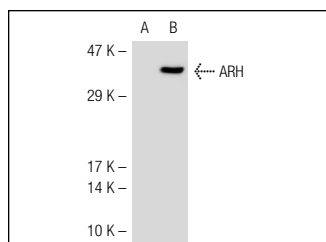
ARH (T-19): sc-26734. Western blot analysis of ARH expression in non-transfected: sc-117752 (**A**) and mouse ARH transfected: sc-124988 (**B**) 293T whole cell lysates.

ARH (T-19): sc-26734. Western blot analysis of ARH expression in non-transfected: sc-117752 (**A**) and human ARH transfected: sc-114378 (**B**) 293T whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction
Guaranteed

Try **ARH (F-11): sc-514106** or **ARH (E-10): sc-514263**, our highly recommended monoclonal alternatives to ARH (T-19).