

# ARH (Q-13): sc-100653

## BACKGROUND

Autosomal recessive hypercholesterolemia protein (ARH, low density lipoprotein (LDL) receptor adaptor protein) is a cytosolic adaptor that couples LDLR to endocytic machinery. ARH couples to the internalization motif of the LDL receptor-FXNPXY, through an N-terminal phosphotyrosine-binding (PTB) domain and binds soluble clathrin trimers and clathrin adaptors. ARH is present at high levels in the kidney, liver and placenta, with lower levels detectable in brain, heart, muscle, colon, spleen, intestine, lung and leukocytes.

## REFERENCES

- Ciccarese, M., et al. 2000. A new locus for autosomal recessive hypercholesterolemia maps to human chromosome 15q25-q26. *Am. J. Hum. Genet.* 66: 453-460.
- 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.
- Mishra, S.K., et al. 2002. The autosomal recessive hypercholesterolemia (ARH) protein interfaces directly with the clathrin-coat machinery. *Proc. Natl. Acad. Sci. USA* 99: 16099-16104.

## CHROMOSOMAL LOCATION

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

## SOURCE

ARH (Q-13) is a mouse monoclonal antibody raised against recombinant ARH of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## RESEARCH USE

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

## APPLICATIONS

ARH (Q-13) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

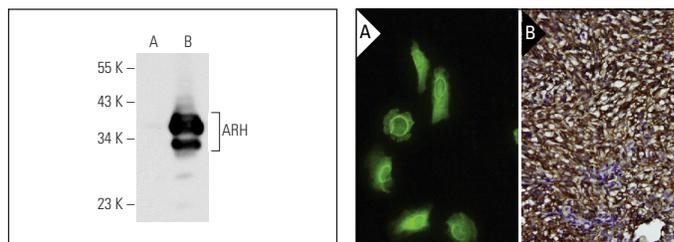
Molecular Weight of ARH: 32-37 kDa.

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

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



ARH (Q-13): sc-100653. Western blot analysis of ARH expression in non-transfected: sc-117752 (A) and human ARH transfected: sc-114378 (B) 293T whole cell lysates.

ARH (Q-13): sc-100653. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human malignant fibrous histiocytoma tissue showing membrane and cytoplasmic localization (B).

## SELECT PRODUCT CITATIONS

- Tao, W., et al. 2016. Endocytic adaptors Arh and Dab2 control homeostasis of circulatory cholesterol. *J. Lipid Res.* 57: 809-817.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.