

ACAP2 (M-121): sc-134781

BACKGROUND

The ADP-ribosylation factor (ARF) family of small GTP-binding proteins are involved in vesicular transport regulation and in controlling cytoskeletal organization and cell adhesion. These proteins mainly regulate membrane traffic. ACAP2 is a member of the centaurin GTPase-activating protein (GAP) family, which comprises a subset of ARF regulatory molecules that transduce PI 3-kinase activation into coordinated control of ARF-dependent pathways. ACAP1 and ACAP2 are both widely expressed in peripheral, tubular membranes and usually interact with each other in various tissues. GAP activity of both ACAP1 and ACAP2 is dependent upon phosphatidylinositol 4,5-bisphosphate [PtdIns(4,5)P₂]. ACAP2 associates with ARF1 and ARF6. Overexpression of ACAP2 blocks the formation of ARF6-dependent protrusions. K1L is a protein required for growth of the vaccinia virus that interacts with the ankyrin repeats of ACAP2.

REFERENCES

1. Jackson, T.R., et al. 2000. ACAPs are ARF6 GTPase-activating proteins that function in the cell periphery. *J. Cell Biol.* 151: 627-638.
2. Furman, C., et al. 2002. DEF-1/ASAP1 is a GTPase-activating protein (GAP) for ARF1 that enhances cell motility through a GAP-dependent mechanism. *J. Biol. Chem.* 277: 7962-7969.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607766. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Jovanovic, O.A., et al. 2005. An effector domain mutant of ARF6 implicates phospholipase D in endosomal membrane recycling. *Mol. Biol. Cell* 17: 327-335.
5. Thacker, E., et al. 2005. The ARF6 GAP Centaurin a1 is a neuronal Actin-binding protein which also functions via GAP-independent activity to regulate the Actin cytoskeleton. *Eur. J. Cell Biol.* 83: 541-554.
6. Bradley, R.R. and Terajima, M. 2005. Vaccinia virus K1L protein mediates host-range function in RK-13 cells via ankyrin repeat and may interact with a cellular GTPase-activating protein. *Virus Res.* 114: 104-112.

CHROMOSOMAL LOCATION

Genetic locus: ACAP2 (human) mapping to 3q29; Acap2 (mouse) mapping to 16 B2.

SOURCE

ACAP2 (M-121) is a rabbit polyclonal antibody raised against amino acids 499-619 mapping near the C-terminus of ACAP2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG 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

ACAP2 (M-121) is recommended for detection of ACAP2 of mouse, rat and, to a lesser extent, 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).

Suitable for use as control antibody for ACAP2 siRNA (h): sc-60121, ACAP2 siRNA (m): sc-60122, ACAP2 shRNA Plasmid (h): sc-60121-SH, ACAP2 shRNA Plasmid (m): sc-60122-SH, ACAP2 shRNA (h) Lentiviral Particles: sc-60121-V and ACAP2 shRNA (m) Lentiviral Particles: sc-60122-V.

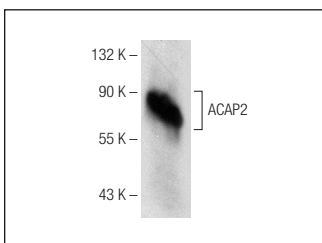
Molecular Weight of ACAP2: 88 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ACAP2 (M-121): sc-134781. Western blot analysis of ACAP2 expression in CCRF-CEM whole cell lysate.

STORAGE

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



Try **ACAP2 (F-8): sc-376150** or **ACAP2 (E-9): sc-271355**, our highly recommended monoclonal alternatives to ACAP2 (M-121).