SANTA CRUZ BIOTECHNOLOGY, INC.

ACAP1 (E-13): sc-49593

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

ACAP1, also designated Centaurin β1 (CENTB1 or Cnt-b1), is a member of the ADP ribosylation factor family of ARF6 GTPase-activating proteins (GAP). GAPs are important regulators of ARF function by controlling the return of ARF to its inactive state. ACAP1 is related to AGAP1 and ASAP1, and all three proteins are similarly expressed in fibroblast cells such as NIH/3T3. Internalization and recycling of integrin receptors is important in cell adhesion and migration modulation and, once inside a cell, proteins and membranes are transported to the endosome where they are sorted for recycling or degradation. ACAP1 promotes cargo sorting by associating directly to recycling cargo proteins. Preventing this interaction inhibits protein recycling. ACAP1 binds transferrin receptors, promoting their transport to the plasma membrane from the endosome. Akt induced phosphorylation of ACAP1 at Ser 554 regulates ACAP1 interaction to integrin in endosomes, and downregulation of Akt or ACAP1 may inhibit cell migration on Fibronectin.

CHROMOSOMAL LOCATION

Genetic locus: CENTB1 (human) mapping to 17p13.1; Centb1 (mouse) mapping to 11 B3.

SOURCE

ACAP1 (E-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ACAP1 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-49593 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ACAP1 (E-13) is recommended for detection of ACAP1 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).

ACAP1 (E-13) is also recommended for detection of ACAP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ACAP1 siRNA (h): sc-44442, ACAP1 siRNA (m): sc-45741, ACAP1 shRNA Plasmid (h): sc-44442-SH, ACAP1 shRNA Plasmid (m): sc-45741-SH, ACAP1 shRNA (h) Lentiviral Particles: sc-44442-V and ACAP1 shRNA (m) Lentiviral Particles: sc-45741-V.

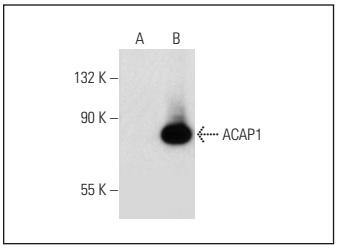
Molecular Weight of ACAP1: 80 kDa.

Positive Controls: ACAP1 (h): 293 Lysate: sc-113342, ACAP1 (m): 293T Lysate: sc-124913 or HeLa whole cell lysate: sc-2200.

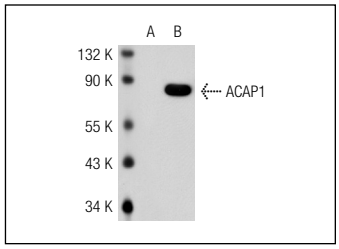
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ACAP1 (E-13): sc-49593. Western blot analysis of ACAP1 expression in non-transfected: sc-117752 (**A**) and mouse ACAP1 transfected: sc-124913 (**B**) 293T whole cell lysates.



ACAP1 (E-13): sc-49593. Western blot analysis of ACAP1 expression in non-transfected: sc-110760 (**A**) and human ACAP1 transfected: sc-113342 (**B**) 293 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.