SANTA CRUZ BIOTECHNOLOGY, INC.

AFAP-110 (H-71): sc-98844

BACKGROUND

Actin filament associated protein (AFAP-110) interacts directly with Actin filaments through its C-terminal Actin binding domain. AFAP-110 contains additional protein binding domains as well, and serves as an adaptor protein. AFAP-110 links signaling molecules to Actin filaments, provides a platform for the preparation of larger signaling complexes, activates Src kinases in response to cellular signals and also directly effects Actin organization as an Actin filament cross-linking protein. Deletion of certain binding elements of AFAP-110 results in altered Actin phenotypes; for instance, deletion of the leucine zipper motif causes repositioning of Actin into rosettes. Because inhibition of certain Actin cytoskeletal conformations inhibits cell division and movement, these conformational changes to AFAP-110, and thus Actin organization in the cell, represent a possible therapeutic target for controlling tumorigenesis and metastasis.

REFERENCES

1. Guappone, A.C. and Flynn, D.C. 1997. The integrity of the SH3 binding motif of AFAP-110 is required to facilitate tyrosine phosphorylation by, and stable complex formation with, Src. Mol. Cell. Biochem. 175: 243-252.
2. Qian, Y., et al. 1998. Src can regulate carboxy terminal interactions with AFAP-110, which influence self-association, cell localization and Actin filament integrity. Oncogene 16: 2185-2195.
3. Guappone, A.C., et al. 1998. Formation of a stable Src-AFAP-110 complex through either an amino-terminal or a carboxy-terminal SH2-binding motif. Mol. Carcinog. 22: 110-119.
4. Qian, Y., et al. 2000. The carboxy terminus of AFAP-110 modulates direct interactions with Actin filaments and regulates its ability to alter Actin filament integrity and induce lamellipodia formation. Exp. Cell Res. 255: 102-113.
5. Baisden, J.M., et al. 2001. The Actin filament-associated protein AFAP-110 is an adaptor protein that modulates changes in Actin filament integrity. Oncogene 20: 6435-6447.
6. Baisden, J.M., et al. 2001. The intrinsic ability of AFAP-110 to alter Actin filament integrity is linked with its ability to also activate cellular tyrosine kinases. Oncogene 20: 6607-6616.

CHROMOSOMAL LOCATION

Genetic locus: AFAP1 (human) mapping to 4p16.1; Afap1 (mouse) mapping to 5 B3.

SOURCE

AFAP-110 (H-71) is a rabbit polyclonal antibody raised against amino acids 626-690 mapping near the C-terminus of AFAP-110 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.

APPLICATIONS

AFAP-110 (H-71) is recommended for detection of AFAP-110 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).

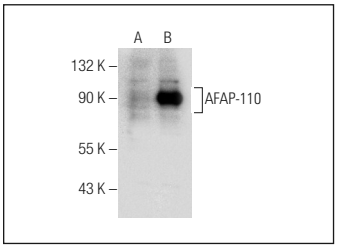
AFAP-110 (H-71) is also recommended for detection of AFAP-110 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for AFAP-110 siRNA (h): sc-40954, AFAP-110 siRNA (m): sc-40955, AFAP-110 shRNA Plasmid (h): sc-40954-SH, AFAP-110 shRNA Plasmid (m): sc-40955-SH, AFAP-110 shRNA (h) Lentiviral Particles: sc-40954-V and AFAP-110 shRNA (m) Lentiviral Particles: sc-40955-V.

Molecular Weight of AFAP-110: 110 kDa.

Positive Controls: AFAP-110 (h): 293T Lysate: sc-114982.

DATA



AFAP-110 (H-71): sc-98844. Western blot analysis of AFAP-110 expression in non-transfected: sc-117752 (**A**) and human AFAP-110 transfected: sc-114982 (**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.

PROTOCOLS

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