

# AFAP-110 (N-18): sc-26270

## 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

- 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.
- Qian, Y., Baisden, J.M., Westin, E.H., Guappone, A.C., Koay, T.C. and Flynn, D.C. 1998. Src can regulate carboxy terminal interactions with AFAP-110, which influence self-association, cell localization and Actin filament integrity. *Oncogene* 16: 2185-2195.
- Guappone, A.C., Weimer, T. and Flynn, D.C. 1998. Formation of a stable Src-AFAP-110 complex through either an amino-terminal or a carboxyterminal SH2-binding motif. *Mol. Carcinog.* 22: 110-119.
- Qian, Y., Baisden, J.M., Zot, H.G., Van Winkle, W.B. and Flynn, D.C. 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.
- Baisden, J.M., Qian, Y., Zot, H.M. and Flynn, D.C. 2001. The Actin filament-associated protein AFAP-110 is an adaptor protein that modulates changes in Actin filament integrity. *Oncogene* 20: 6435-6447.
- Baisden, J.M., Gatesman, A.S., Cherezova, L., Jiang, B.H. and Flynn, D.C. 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 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of AFAP-110 of human origin.

## STORAGE

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

## 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-26270 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

AFAP-110 (N-18) 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), 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 (N-18) 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.

## 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) 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.

## RESEARCH USE

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

## PROTOCOLS

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

**MONOS**  
Satisfaction  
Guaranteed

Try **AFAP-110 (D-11): sc-374655**, our highly recommended monoclonal alternative to AFAP-110 (N-18).