SANTA CRUZ BIOTECHNOLOGY, INC.

AFAP-110 (D-11): sc-374655

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 affects 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.

CHROMOSOMAL LOCATION

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

SOURCE

AFAP-110 (D-11) is a mouse monoclonal 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_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AFAP-110 (D-11) is available conjugated to agarose (sc-374655 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374655 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374655 PE), fluorescein (sc-374655 FITC), Alexa Fluor® 488 (sc-374655 AF488), Alexa Fluor® 546 (sc-374655 AF546), Alexa Fluor® 594 (sc-374655 AF594) or Alexa Fluor® 647 (sc-374655 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374655 AF680) or Alexa Fluor® 790 (sc-374655 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

AFAP-110 (D-11) is recommended for detection of AFAP-110 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 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.

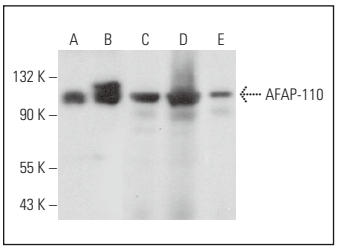
Molecular Weight of AFAP-110: 110 kDa.

Positive Controls: AFAP-110 (h): 293T Lysate: sc-114982, rat eye extract: sc-364805 or C6 whole cell lysate: sc-364373.

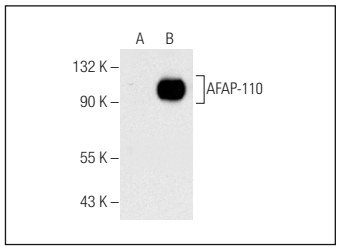
RECOMMENDED SUPPORT REAGENTS

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.

DATA



AFAP-110 (D-11): sc-374655. Western blot analysis of AFAP-110 expression in C6 (**A**) and IMR-32 (**B**) whole cell lysates and mouse brain (**C**), rat brain (**D**) and rat eye (**E**) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



AFAP-110 (D-11): sc-374655. 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.

SELECT PRODUCT CITATIONS

1. Wang, Z.Y., et al. 2018. Upregulation of the long non-coding RNA AFAP1-AS1 affects the proliferation, invasion and survival of tongue squamous cell carcinoma via the Wnt/β-catenin signaling pathway. Mol. Cancer 17: 3.
2. Wang, Z.Y., et al. 2019. Upregulation of the long non-coding RNA AFAP1-AS1 affects the proliferation, invasion and survival of tongue squamous cell carcinoma via the Wnt/β-catenin signaling pathway. Mol. Cancer 18: 104.

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 for detailed protocols and support products.