

AFAP-1L1 (D-6): sc-514788

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. By linking signaling molecules to Actin filaments, AFAP-110 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. AFAP-1L1 (Actin filament-associated protein 1-like 1) is a 768 amino acid protein that, like its relative AFAP110, contains two Pleckstrin homology (PH) domains, which are normally found in proteins involved in intracellular signaling. AFAP-1L1 is phosphorylated upon DNA damage, probably by ATR or Atm. There are four isoforms of AFAP-1L1 that are produced as a result of alternative splicing events.

REFERENCES

- Musacchio, A., et al. 1993. The PH domain: a common piece in the structural patchwork of signalling proteins. *Trends Biochem. Sci.* 18: 343-348.
- 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.
- 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.
- 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.
- Lodyga, M., et al. 2002. Molecular cloning of Actin filament-associated protein: a putative adaptor in stretch-induced Src activation. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 283: L265-L274.
- Jikuya, H., et al. 2003. Characterization of long cDNA clones from human adult spleen. II. The complete sequences of 81 cDNA clones. *DNA Res.* 10: 49-57.

CHROMOSOMAL LOCATION

Genetic locus: AFAP1L1 (human) mapping to 5q32; Afap1l1 (mouse) mapping to 18 E1.

SOURCE

AFAP-1L1 (D-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 57-74 near the N-terminus of AFAP-1L1 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-514788 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

AFAP-1L1 (D-6) is recommended for detection of AFAP-1L1 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-1L1 siRNA (h): sc-92010, AFAP-1L1 siRNA (m): sc-140895, AFAP-1L1 shRNA Plasmid (h): sc-92010-SH, AFAP-1L1 shRNA Plasmid (m): sc-140895-SH, AFAP-1L1 shRNA (h) Lentiviral Particles: sc-92010-V and AFAP-1L1 shRNA (m) Lentiviral Particles: sc-140895-V.

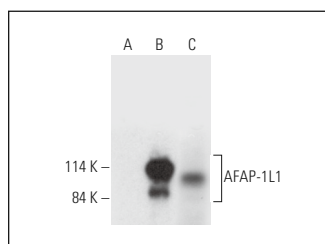
Molecular Weight of AFAP-1L1: 86 kDa.

Positive Controls: AFAP-1L1 (m): 293T Lysate: sc-178261, Jurkat whole cell lysate: sc-2204 or MDA-MB-231 cell lysate: sc-2232.

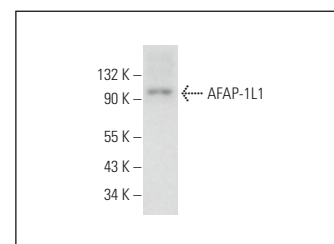
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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-1L1 (D-6): sc-514788. Western blot analysis of AFAP-1L1 expression in non-transfected 293T: sc-117752 (A), mouse AFAP-1L1 transfected 293T: sc-178261 (B) and MDA-MB-231 (C) whole cell lysates.



AFAP-1L1 (D-6): sc-514788. Western blot analysis of AFAP-1L1 expression in Jurkat 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.

RESEARCH USE

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