

# paxillin (C-18): sc-7336

## BACKGROUND

Paxillin is a focal adhesion phosphoprotein that is localized to the cytoskeleton. Phosphorylation of paxillin has been shown to occur in response to PDGF treatment, v-Src transformation or cross-linking of integrins. FAK (focal adhesion kinase) and PYK2 have been shown to phosphorylate paxillin. FAK phosphorylates paxillin specifically on Tyr 118 *in vitro*. However, FAK phosphorylation does not seem to be required for the recruitment of paxillin to cell adhesion sites. Paxillin may play a role in signal transduction, regulation of cell morphology and the recruitment of structural and signaling molecules to focal adhesions. It has been shown that the amount of paxillin is reduced in mitotic cells by proteolytic downregulation and that paxillin is alternatively phosphorylated on serine rather than on tyrosine and serine during mitosis.

## REFERENCES

- Graham, I.L., et al. 1994. Complement receptor 3 (CR3, Mac-1, Integrin  $\alpha$ M $\beta$ 2, CD11 $\beta$ /CD18) is required for tyrosine phosphorylation of paxillin in adherent and nonadherent neutrophils. *J. Cell Biol.* 127: 1139-1147.
- Salgia, R., et al. 1995. Molecular cloning of human paxillin, a focal adhesion protein phosphorylated by P210BCR/ABL. *J. Biol. Chem.* 270: 5039-5047.
- Bellis, S.L., et al. 1995. Characterization of tyrosine phosphorylation of paxillin *in vitro* by focal adhesion kinase. *J. Biol. Chem.* 270: 17437-17441.
- Leventhal, P.S., et al. 1996. Tyrosine phosphorylation and enhanced expression of paxillin during neuronal differentiation *in vitro*. *J. Biol. Chem.* 271: 5957-5960.
- Brown, M.C., et al. 1996. Identification of LIM3 as the principal determinant of paxillin focal adhesion localization and characterization of a novel motif on paxillin directing vinculin and focal adhesion kinase binding. *J. Cell Biol.* 135: 1109-1123.
- Yamaguchi, R., et al. 1997. Mitosis specific serine phosphorylation and downregulation of one of the focal adhesion proteins, paxillin. *Oncogene* 15: 1753-1761.
- Li, X. et al. 1997. Paxillin is tyrosine-phosphorylated by and preferentially associates with the calcium-dependent tyrosine kinase in rat liver epithelial cells. *J. Biol. Chem.* 272: 14341-14348.

## CHROMOSOMAL LOCATION

Genetic locus: PXN (human) mapping to 12q24.23; Pxn (mouse) mapping to 5 F.

## SOURCE

paxillin (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of paxillin of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7336 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

paxillin (C-18) is recommended for detection of  $\alpha$ ,  $\beta$  and  $\gamma$  isoforms of paxillin of mouse, rat, human *Drosophila melanogaster* and *Xenopus* 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).

paxillin (C-18) is also recommended for detection of  $\alpha$ ,  $\beta$  and  $\gamma$  isoforms of paxillin in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for paxillin siRNA (h): sc-29439, paxillin siRNA (m): sc-36197, paxillin shRNA Plasmid (h): sc-29439-SH, paxillin shRNA Plasmid (m): sc-36197-SH, paxillin shRNA (h) Lentiviral Particles: sc-29439-V and paxillin shRNA (m) Lentiviral Particles: sc-36197-V.

Molecular Weight of paxillin: 68 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263, HISM cell lysate: sc-2229 or ECV304 cell lysate: sc-2269.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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<sup>™</sup> Mounting Medium: sc-24941.

## SELECT PRODUCT CITATIONS

- Schaley, J.E., et al. 2005. The adenovirus E4-6/7 protein directs nuclear localization of E2F-4 via an arginine-rich motif. *J. Virol.* 79: 2301-2308.
- Guo, J., et al. 2011. Expression and localization of paxillin in rat pancreas during development. *World J. Gastroenterol.* 17: 4479-4487.

## 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.



Try **paxillin (B-2): sc-365379** or **paxillin (C-1): sc-373880**, our highly recommended monoclonal alternatives to paxillin (C-18). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **paxillin (B-2): sc-365379**.