

# paxillin (D-8): sc-365059

## 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

paxillin (D-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 17-47 near the N-terminus of paxillin of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> 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-365059 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

paxillin (D-8) is recommended for detection of  $\alpha$ ,  $\beta$ ,  $\gamma$  isoforms of paxillin 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).

paxillin (D-8) is also recommended for detection of  $\alpha$ ,  $\beta$ ,  $\gamma$  isoforms of paxillin in additional species, including equine and canine.

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.

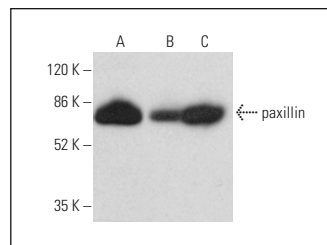
Molecular Weight of paxillin: 68 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, Hep G2 cell lysate: sc-2227 or PC-3 cell lysate: sc-2220.

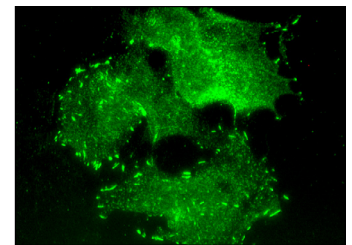
## RECOMMENDED SUPPORT REAGENTS

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



paxillin (D-8): sc-365059. Western blot analysis of paxillin expression in HUV-EC-C (A), Hep G2 (B) and PC-3 (C) whole cell lysates.




paxillin (D-8): sc-365059. Immunofluorescence staining of formalin-fixed Hep G2 cells showing focal adhesions and membrane localization.

## SELECT PRODUCT CITATIONS

- Dave, J.M., et al. 2016. Hic-5 mediates the initiation of endothelial sprouting by regulating a key surface metalloproteinase. *J. Cell Sci.* 129: 743-756.
- Kratimenos, P., et al. 2017. FAK-Src-paxillin system expression and disease outcome in human neuroblastoma. *Pediatr. Hematol. Oncol.* 34: 221-230.
- Shen, L., et al. 2018.  $\beta$ 3GnT8 regulates oxaliplatin resistance by altering Integrin  $\beta$ 1 glycosylation in colon cancer cells. *Oncol. Rep.* 39: 2006-2014.
- Kim, B., et al. 2020. Enhancement of aberrantly modified integrin-mediated cell motility in multicellular tumor spheroids. *Int. J. Oncol.* 56: 1490-1498.
- Brockmueller, A., et al. 2022.  $\beta$ 1-integrin plays a major role in resveratrol-mediated anti-invasion effects in the CRC microenvironment. *Front. Pharmacol.* 13: 978625.
- Sveeggen, T.M., et al. 2023. Annexin A2 modulates phospholipid membrane composition upstream of Arp2 to control angiogenic sprout initiation. *FASEB J.* 37: e22715.

## RESEARCH USE

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



See **paxillin (B-2): sc-365379** for paxillin antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.