

paxillin (D-9): sc-365174



The Power to Question

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-9) is a mouse monoclonal antibody raised against amino acids 155-268 mapping within an internal region of paxillin of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

paxillin (D-9) is available conjugated to agarose (sc-365174 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365174 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365174 PE), fluorescein (sc-365174 FITC), Alexa Fluor® 488 (sc-365174 AF488), Alexa Fluor® 546 (sc-365174 AF546), Alexa Fluor® 594 (sc-365174 AF594) or Alexa Fluor® 647 (sc-365174 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365174 AF680) or Alexa Fluor® 790 (sc-365174 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

paxillin (D-9) is recommended for detection of α , β , γ 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).

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: HeLa whole cell lysate: sc-2200, HUV-EC-C whole cell lysate: sc-364180 or ECV304 cell lysate: sc-2269.

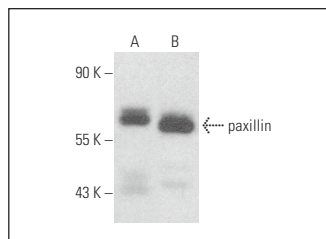
STORAGE

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

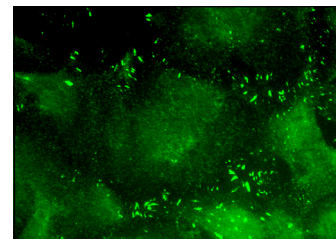
RESEARCH USE

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

DATA



paxillin (D-9): sc-365174. Western blot analysis of paxillin expression in HeLa (A) and HUV-EC-C (B) whole cell lysates.



paxillin (D-9): sc-365174. Immunofluorescence staining of formalin-fixed Hep G2 cells showing focal adhesions and membrane localization.

SELECT PRODUCT CITATIONS

- Ho, T.C., et al. 2011. Pigment epithelium-derived factor (PEDF) promotes tumor cell death by inducing macrophage membrane tumor necrosis factor-related apoptosis-inducing ligand (TRAIL). *J. Biol. Chem.* 286: 35943-35954.
- Wang, R., et al. 2013. Lipid rafts control human melanoma cell migration by regulating focal adhesion disassembly. *Biochim. Biophys. Acta* 1833: 3195-3205.
- Lopez-Sanchez, I., et al. 2015. Focal adhesions are foci for tyrosine-based signal transduction via GIV/girdin and G proteins. *Mol. Biol. Cell* 26: 4313-4324.
- Zhang, X., et al. 2017. RUNX3 inhibits melanoma cell migration through regulation of cell shape change. *Cell Biol. Int.* 41: 1048-1055.
- Yu, H., et al. 2018. Fluid shear stress regulates Hep G2 cell migration through time-dependent integrin signaling cascade. *Cell Adh. Migr.* 12: 56-68.
- Zhao, H., et al. 2019. DOK7V1 influences the malignant phenotype of lung cancer cells through PI3K/Akt/mTOR and FAK/paxillin signaling pathways. *Int. J. Oncol.* 54: 381-389.
- Guo, P., et al. 2019. Cytosolic phospholipase A2 α modulates cell-matrix adhesion via the FAK/paxillin pathway in hepatocellular carcinoma. *Cancer Biol. Med.* 16: 377-390.
- Su, G., et al. 2019. Integrin-induced signal event contributes to self-assembled monolayers on Au-nanoparticle-regulated cancer cell migration and invasion. *ACS Biomater. Sci. Eng.* 5: 1804-1821.
- Pothuraju, R., et al. 2020. Molecular implications of MUC5AC-CD44 axis in colorectal cancer progression and chemoresistance. *Mol. Cancer* 19: 37.
- Li, D., et al. 2021. Pathogenic variants in CDH11 impair cell adhesion and cause Teebi hypertelorism syndrome. *Hum. Genet.* 140: 1061-1076.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA