SANTA CRUZ BIOTECHNOLOGY, INC.

paxillin (B-2): sc-365379

SANTA CRUZ BIOTECHNOLOGY

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 phosphoryl-ation 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 (B-2) 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_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

paxillin (B-2) is available conjugated to agarose (sc-365379 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365379 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365379 PE), fluorescein (sc-365379 FITC), Alexa Fluor® 488 (sc-365379 AF488), Alexa Fluor® 546 (sc-365379 AF546), Alexa Fluor® 594 (sc-365379 AF594) or Alexa Fluor® 647 (sc-365379 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365379 AF680) or Alexa Fluor® 790 (sc-365379 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365379 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

paxillin (B-2) is recommended for detection of paxillin isoforms α, β, γ 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 (B-2) is also recommended for detection of paxillin isoforms α, β and γ in additional species, including equine and canine.

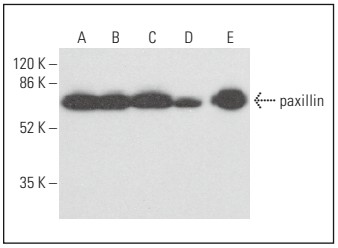
Suitable for use as control antibody for paxillin siRNA (h): sc-29439, paxillin siRNA (m): sc-36197, paxillin shRNA Plasmid (h): sc-29439-SH, paxillin shRNA Plasmid (m): sc-36197-SH, paxillin shRNA (h) Lentiviral Particles: sc-29439-V and paxillin shRNA (m) Lentiviral Particles: sc-36197-V.

Molecular Weight of paxillin: 68 kDa.

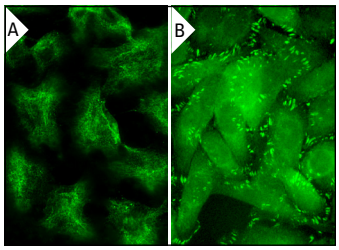
STORAGE

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

DATA



paxillin (B-2): sc-365379. Western blot analysis of paxillin expression in HeLa (**A**), HUV-EC-C (**B**), CCD-1064Sk (**C**), ECV304 (**D**) and HT-29 (**E**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



paxillin (B-2): sc-365379. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). paxillin (B-2) Alexa Fluor® 488: sc-365379 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing focal adhesions, membrane and cytoplasmic localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**B**).

SELECT PRODUCT CITATIONS

1. Korshunov, A., et al. 2000. Immunohistochemical markers for intracranial ependymoma recurrence. An analysis of 88 cases. J. Neurol. Sci. 177: 72-82.
2. Tian, K., et al. 2015. Sirtuin-6 inhibits cardiac fibroblasts differentiation into myofibroblasts via inactivation of nuclear factor κB signaling. Transl. Res. 165: 374-386.
3. Xiao, P., et al. 2016. Anticancer effect of docetaxel induces apoptosis of prostate cancer via the cofilin-1 and paxillin signaling pathway. Mol. Med. Rep. 13: 4079-4084.
4. Rivera Vargas, T., et al. 2017. Selective degradation of PU.1 during autophagy represses the differentiation and antitumour activity of TH9 cells. Nat. Commun. 8: 559.
5. Shen, M., et al. 2018. Cell-specific functions of ADAM17 regulate the progression of thoracic aortic aneurysm. Circ. Res. 123: 372-388.
6. Stubb, A., et al. 2019. Superresolution architecture of cornerstone focal adhesions in human pluripotent stem cells. Nat. Commun. 10: 4756.
7. Jin, L., et al. 2020. Deep learning enables structured illumination microscopy with low light levels and enhanced speed. Nat. Commun. 11: 1934.
8. Wang, Q., et al. 2020. Protective role of tangshen formula on the progression of renal damage in db/db mice by TRPC6/Talin1 pathway in podocytes. J. Diabetes Res. 2020: 3634974.
9. Kitowska, K., et al. 2021. MET-Pyk2 axis mediates acquired resistance to FGFR inhibition in cancer cells. Front. Oncol. 11: 633410.

RESEARCH USE

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