SANTA CRUZ BIOTECHNOLOGY, INC.

paxillin (177): sc-136297

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 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

1. Graham, I.L., et al. 1994. Complement receptor 3 (CR3, Mac-1, Integrin αMβ2, CD11b/CD18) is required for tyrosine phosphorylation of paxillin in adherent and nonadherent neutrophils. J. Cell Biol. 127: 1139-1147.
2. Salgia, R., et al. 1995. Molecular cloning of human paxillin, a focal adhesion protein phosphoryated by $P210^{Bcr/Abl}$. J. Biol. Chem. 270: 5039-5047.
3. Bellis, S.L., et al. 1995. Characterization of tyrosine phosphorylation of paxillin *in vitro* by focal adhesion kinase. J. Biol. Chem. 270: 17437-17441.

CHROMOSOMAL LOCATION

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

SOURCE

paxillin (177) is a mouse monoclonal antibody raised against amino acids 1-557 representing full length paxillin of chicken origin.

PRODUCT

Each vial contains 50 µg IgG_1 in 0.5 ml of PBS with < 0.1% sodium azide, 0.1% gelatin, 20% glycerol, and 0.04% stabilizer protein.

APPLICATIONS

paxillin (177) is recommended for detection of paxillin of mouse, rat, human, avian, bovine and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

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.

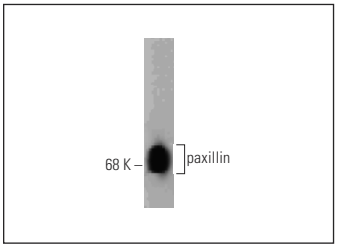
Molecular Weight of paxillin: 68 kDa.

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

DATA



paxillin (177): sc-136297. Western blot analysis of paxillin expression in human endothelial whole cell lysate.

SELECT PRODUCT CITATIONS

1. Sen, A., et al. 2012. Paxillin mediates extranuclear and intranuclear signaling in prostate cancer proliferation. J. Clin. Invest. 122: 2469-2481.
2. Puri, P. and Walker, W.H. 2013. The tyrosine phosphatase SHP2 regulates Sertoli cell junction complexes. Biol. Reprod. 88: 59.
3. Lin, C.Y., et al. 2014. Inhibition of the invasion and migration of renal carcinoma 786-o-si3 cells *in vitro* and *in vivo* by *Koelreuteria formosana* extract. Mol. Med. Rep. 10: 3334-3342.
4. Darr, J., et al. 2015. Phosphoproteomic analysis reveals Smarcb1 dependent EGFR signaling in malignant rhabdoid tumor cells. Mol. Cancer 14: 167.
5. Shi, J., et al. 2017. Fangchinoline suppresses growth and metastasis of melanoma cells by inhibiting the phosphorylation of FAK. Oncol. Rep. 38: 63-70.
6. Huang, C.C., et al. 2019. Dietary delphinidin inhibits human colorectal cancer metastasis associating with upregulation of miR-204-3p and suppression of the integrin/FAK axis. Sci. Rep. 9: 18954.
7. Huang, C.C., et al. 2024. Gallic acid attenuates metastatic potential of human colorectal cancer cells through the miR-1247-3p-modulated integrin/FAK axis. Environ. Toxicol. 39: 2077-2085.

RESEARCH USE

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