

# p-paxillin (Tyr 118): sc-101774

## BACKGROUND

The effects of some oncogenes, growth factors and neuropeptides are mediated by tyrosine phosphorylation of focal adhesion kinase (FAK) and paxillin cytoskeletal proteins. A rapid increase in tyrosine phosphorylation of paxillin, FAK and Crk-associated substrate (CAS) are prominent early events triggered by many G protein-coupled receptors. In addition to G protein-coupled receptors, angiotensin IV (Ang IV), protein kinase C and other proteins can also mediate the tyrosine phosphorylation of paxillin. Paxillin must bind FAK for maximal phosphorylation in response to cell adhesion. FAK may function to direct tyrosine phosphorylation of paxillin in the process of transformation by the Src oncogene. Tyrosine phosphorylated FAK and paxillin function to regulate the signaling mechanism of the rapid nongenomic action of dexamethasone on the Actin cytoskeleton. In glomerular epithelial cells, TNF $\alpha$  induces substantial reorganization of Actin cytoskeleton and focal adhesions. TNF $\alpha$  also simultaneously mediates tyrosine phosphorylation of paxillin and FAK, which regulate Actin polymerization and the formation of focal adhesions, and may be directly involved in the redistribution of Actin.

## CHROMOSOMAL LOCATION

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

## SOURCE

p-paxillin (Tyr 118) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 118 phosphorylated paxillin of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

p-paxillin (Tyr 118) is recommended for detection of Tyr 118 phosphorylated paxillin of human and mouse origin and correspondingly phosphorylated Tyr 140 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (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 p-paxillin: 68 kDa.

Positive Controls: HeLa + serum-starved cell lysate: sc-24693, HeLa + EGF whole cell lysate or A-431 whole cell lysate: sc-2201.

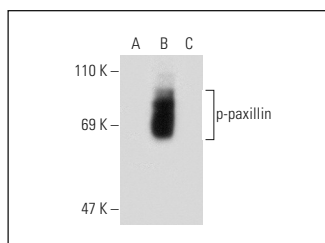
## STORAGE

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

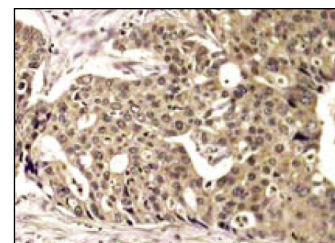
## RESEARCH USE

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

## DATA



p-paxillin (Tyr 118): sc-101774. Western blot analysis of paxillin phosphorylation in untreated (A), pervanadate treated (B) and pervanadate and lambda protein phosphatase (sc-200312A) treated (C) A-431 whole cell lysates.



p-paxillin (Tyr 118): sc-101774. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast carcinoma tissue showing nuclear staining.

## SELECT PRODUCT CITATIONS

1. Peck, A.B., et al. 2011. Gene expression profiling of early-phase Sjögren's syndrome in C57BL/6.NOD-Aec1Aec2 mice identifies focal adhesion maturation associated with infiltrating leukocytes. *Invest. Ophthalmol. Vis. Sci.* 52: 5647-5655.
2. Huang, C.S., et al. 2013. Long-term ethanol exposure-induced hepatocellular carcinoma cell migration and invasion through lysyl oxidase activation are attenuated by combined treatment with pterostilbene and curcumin analogues. *J. Agric. Food Chem.* 61: 4326-4335.
3. Hocking, K.M., et al. 2013. Role of cyclic nucleotide-dependent actin cytoskeletal dynamics: [Ca<sup>2+</sup>], and force suppression in forskolin-pretreated porcine coronary arteries. *PLoS ONE* 8: e60986.
4. Yu, H., et al. 2013. Interleukin-8 regulates endothelial permeability by down-regulation of tight junction but not dependent on integrins induced focal adhesions. *Int. J. Biol. Sci.* 9: 966-979.
5. Shen, Y., et al. 2015. Effect of surface chemistry on the integrin induced pathway in regulating vascular endothelial cells migration. *Colloids Surf. B, Biointerfaces* 126: 188-197.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



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Try **p-paxillin (A-5): sc-365020** or **p-paxillin (D-10): sc-271980**, our highly recommended monoclonal alternatives to p-paxillin (Tyr 118).