Paxillin (Ser-83), phospho-specific

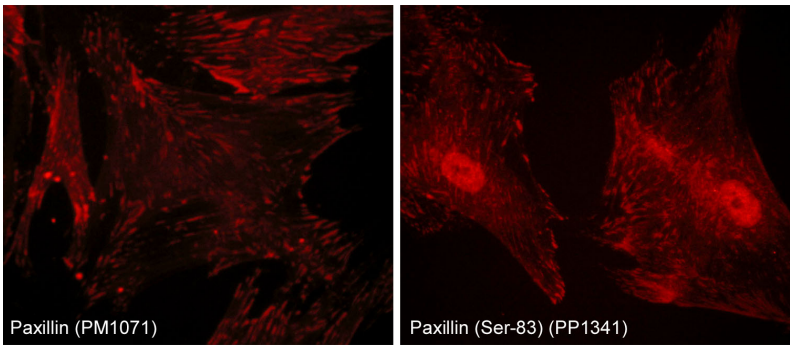
Cat. #	PP1341
Host	Rabbit Polyclonal
Size	100 µl

Background:

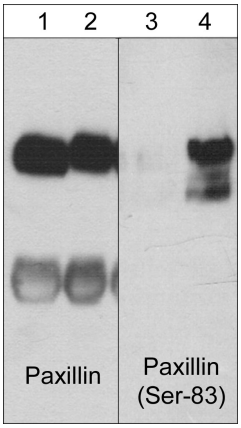
Paxillin, a focal adhesion protein, is involved in focal adhesion formation during cell adhesion and migration. Paxillin contains LD motifs, LIM domains, and SH3-/SH2-binding domains that participate in a variety of protein-protein interactions with kinases, GTPase-activating proteins, and cytoskeletal proteins. Phosphorylation of paxillin occurs at both tyrosine and serine sites. Serine phosphorylation of paxillin occurs in response to growth-factor activation and fibronectins. Both ERK and p38MAPK kinases phosphorylate serine 83 *in vitro*. HGF stimulation of murine epithelial cells leads to ERK-mediated phosphorylation of Ser-83, which is required for HGF-induced cell spreading and migration. In addition, Ser-83 is phosphorylated in response to NGF in PC12 cells, and this phosphorylation may be involved in neurite extension. In human paxillin, Ser-85 rather than Ser-83 may be the site phosphorylated by p38 MAPK and mutation of this site inhibits NGF-induced neurite extension. Thus, serine residues in the N-terminal region of paxillin may be important for growth-factor mediated changes in activity.

References

Huang, C. et al. (2004) J Cell Biol. 164(4):593-602.
Ishibe, S. et al. (2004) Mol. Cell 16 :257-267.



Immunocytochemical labeling of Ser-83 phosphorylated paxillin in rabbit spleen fibroblasts. The cells were labeled with mouse monoclonal Paxillin (left) and rabbit polyclonal Paxillin (Ser-83, right) antibodies, then detected using appropriate secondary antibodies conjugated to Cy3.



Western blot analysis of PC12 cells untreated (lanes 1 & 3) or treated with NGF (200 ng/ml) for 60 min (lanes 2 & 4). The blots were probed with mouse monoclonal anti-Paxillin (PM1071; lane 1 & 2) or rabbit polyclonal anti-Paxillin (Ser -83) phospho-specific antibody (lane 3 & 4).

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Immunogen:

Phospho-Paxillin (Ser-83) synthetic peptide (coupled to KLH) corresponding to amino acid residues around serine 83 of mouse paxillin. This sequence is highly conserved in rat and human paxillin and is also found in all isoforms (α, β, γ) of paxillin.

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at –20°C. Do not aliquot. Stable for 1 year.

Applications:

WB	1:1000
ELISA	1:2000
ICC	1:50

End user should determine optimal dilution for their particular applications and experiments.
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.

Specificity:

This antibody was affinity purified using phospho-Paxillin (Ser-83) peptide (without carrier). The antibody detects a 68kDa* protein corresponding to the molecular mass of phosphorylated paxillin on SDS-PAGE immunoblots of NGF treated rat PC12 cells, as well as calyculin A treated human A431 cells and mouse macrophages.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Related Products:

PP1051 Paxillin (Ser-178), phospho-specific Rabbit Polyclonal
PM1071 Paxillin Mouse Monoclonal
PM1021 Paxillin (Tyr-31), phospho-specific Mouse Monoclonal
PP1161 Paxillin (C-terminal) Rabbit Polyclonal
FM2461 FAK (Central region) Mouse Monoclonal
FM1211 FAK (Tyr-397), phospho-specific Mouse Monoclonal

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