Datasheet for ABIN968043

anti-Paxillin antibody (AA 1-557)

3 Images | 5 Publications

Go to Product page

Overview

Quantity:	150 µg
Target:	Paxillin (PXN)
Binding Specificity:	AA 1-557
Reactivity:	Human, Mouse, Rat, Chicken, Dog, Cow
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Paxillin antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), BioImaging (BI)

Product Details

Immunogen:	Chicken Paxillin aa. 1-557
Clone:	177-Paxillin
Isotype:	IgG1
Cross-Reactivity:	Human, Cow (Bovine), Dog (Canine), Mouse (Murine), Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. This antibody has been developed and certified for the bioimaging application. However, a routine bioimaging test is not performed on every lot. Researchers are encouraged to titrate the reagent for optimal performance. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive

Product Details

	deposits in plumbing. 5. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 6. Triton is a trademark of the Dow Chemical Company.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	Paxillin (PXN)
Alternative Name:	Paxillin (PXN Products)
Background:	Paxillin, a focal adhesion protein, is a substrate for several tyrosine kinases such as src, FAK, and p120BRC/ABL. The tyrosine phosphorylation of paxillin is affected by conditions that change cell-cell adhesion. This is consisent with the possibility that paxillin is involved in the regulation of cell morphology. Additionally, because of its SH3-binding domain, paxillin associates tightly with FAK and Crk in an extracellular matrix-independent manner. Although paxillin was initially detected in fibroblasts, its phosphorylation may be important during neurite extension during differentiation.
Molecular Weight:	68 kDa
Pathways:	MAPK Signaling, EGFR Signaling Pathway, Response to Growth Hormone Stimulus, Cell-Cell Junction Organization, Maintenance of Protein Location, CXCR4-mediated Signaling Events, Signaling Events mediated by VEGFR1 and VEGFR2, Signaling of Hepatocyte Growth Factor Receptor, VEGF Signaling

Application Details

Application Notes:	Bioimaging 1. Seed the cells in appropriate culture medium at ~10,000 cells per well in an 96-well Imaging Plate and culture overnight. 2. Remove the culture medium from the wells, and fix the cells by adding 100 myl of Fixation Buffer to each well. Incubate for 10 minutes at room temperature (RT). 3. Remove the fixative from the wells, and permeabilize the cells using either 90% methanol, or Triton™ X-100: a. Add 100 myl of -20°C 90% methanol to each well and incubate for 5 minutes at RT. OR b. Add 100 myl of 0.1% Triton™ X-100 to each well and incubate for 5 minutes at RT. 4. Remove the permeabilization buffer, and wash the wells twice with 100 myl of 1× PBS. 5. Remove the PBS, and block the cells by adding 100 myl of to each well. Incubate for 30

Application Details

	minutes at RT. 6. Remove the blocking buffer and add 50 myl of the optimally titrated primary antibody (diluted in Stain Buffer) to each well, and incubate for 1 hour at RT. 7. Remove the primary antibody, and wash the wells three times with 100 myl of 1× PBS. 8. Remove the PBS, and add the second step reagent at its optimally titrated concentration in 50 myl to each well, and incubate in the dark for 1 hour at RT. 9. Remove the second step reagent, and wash the wells three times with 100 myl of 1× PBS. 10. Remove the PBS, and counter-stain the nuclei by adding 200 myl per well of 2 myg/ml Hoechst 33342 in 1× PBS to each well at least 15 minutes before imaging. 11. View and analyze the cells on an appropriate imaging instrument.
Comment:	Related Products: ABIN968536, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:	Ku, Meier: "Phosphorylation of paxillin via the ERK mitogen-activated protein kinase cascade in EL4 thymoma cells." in: **The Journal of biological chemistry**, Vol. 275, Issue 15, pp. 11333-40, (2000) (PubMed). Takayama, Tanaka, Nagai, Okada et al.: "Adenovirus-mediated overexpression of C-terminal Src kinase (Csk) in type I astrocytes interferes with cell spreading and attachment to fibronectin. Correlation with tyrosine phosphorylations of ..." in: **The Journal of biological chemistry**, Vol. 274, Issue 4, pp. 2291-7, (1999) (PubMed).

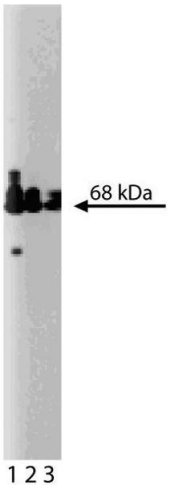
Publications

Leventhal, Feldman: "Tyrosine phosphorylation and enhanced expression of paxillin during neuronal differentiation in vitro." in: **The Journal of biological chemistry**, Vol. 271, Issue 11, pp. 5957-60, (1996) (PubMed).

Salgia, Li, Lo, Brunkhorst, Kansas, Sobhany, Sun, Pisick, Hallek, Ernst: "Molecular cloning of human paxillin, a focal adhesion protein phosphorylated by P210BCR/ABL." in: **The Journal of biological chemistry**, Vol. 270, Issue 10, pp. 5039-47, (1995) (PubMed).

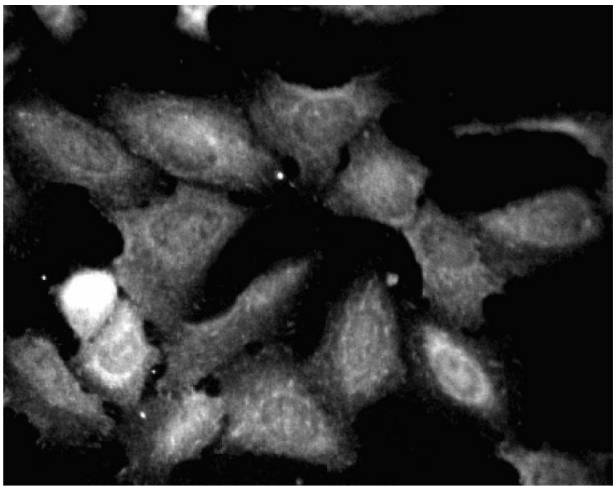
Turner, Glenney, Burridge: "Paxillin: a new vinculin-binding protein present in focal adhesions." in: **The Journal of cell biology**, Vol. 111, Issue 3, pp. 1059-68, (1990) (PubMed).

Images



Western Blotting

Image 1. Western blot analysis of Paxillin on a human endothelial lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the anti-Paxillin antibody.



Immunofluorescence

Image 2. Immunofluorescent staining of HeLa (ATCC CCL-2) cells. Cells were seeded in a 96 well imaging plate at ~10 000 cells per well. After overnight incubation, cells were stained using the alcohol perm protocol and the anti-Paxillin antibody. The second step reagent was Alexa Fluor® 555 conjugated anti-mouse Ig (Invitrogen). The image was taken on a BD Pathway™ 855 Bioimager using a 20x objective. This antibody also stained A549 (ATCC CCL-185) and U-2 OS (ATCC HTB-96) cells and worked with both the Triton™ X-100 and alcohol perm protocols.


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Image 3.