

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects Phospho-Paxillin (Y31) in direct ELISAs and Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 698239
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Phosphopeptide containing the human Paxillin Y31 site
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.1 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below

## DATA

**Western Blot**

**Detection of Human Phospho-Paxillin (Y31) by Western Blot.** Western blot shows lysates of A431 human epithelial carcinoma cell line, Jurkat human acute T cell leukemia cell line, and Daudi human Burkitt's lymphoma cell line untreated (-) or treated (+) with 1 mM Pervanadate (PV) for 30 minutes. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human Phospho-Paxillin (Y31) Antigen Affinity-purified Monoclonal Antibody (Catalog # MAB61641) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). Specific bands were detected for Phospho-Paxillin (Y31) at approximately 65 to 68 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**

**Paxillin in HUVEC Human Cells.** Paxillin phosphorylated at Y31 was detected in immersion fixed HUVEC human umbilical vein endothelial cells using Mouse Anti-Human Phospho-Paxillin (Y31) Antigen Affinity-purified Monoclonal Antibody (Catalog # MAB61641) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red, upper panel; Catalog # NL007) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and focal adhesions. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

## BACKGROUND

Paxillin is a 65 kDa cytoskeletal adaptor protein and member of the Paxillin family. Human Paxillin is 591 amino acids (aa) in length and contains four LIM zinc-binding domains. Alternative splicing produces three isoforms. Human Paxillin shares 94% and 85% aa identity with mouse and rat Paxillin, respectively. Paxillin is found at the interface between actin filaments and the plasma membrane, and it localizes to focal adhesions, where it provides a platform for the integration and coordination of adhesion- and growth factor-related signals. Paxillin phosphorylation at tyrosines 31 and 118 is required for integrin-mediated cytoskeletal reorganization, and may play a role in the disassembly of focal adhesions and stress fibers during cellular transformation.