

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Zyxin in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG ₁ Clone # 692624
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Zyxin Lys265-Leu383 Accession # Q15942
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

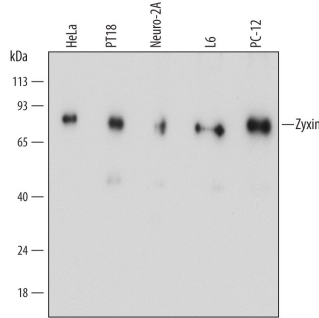
APPLICATIONS

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
Western Blot	0.5 µg/mL	See Below
Immunocytochemistry	3-25 µg/mL	See Below
Immunohistochemistry	3-25 µg/mL	See Below

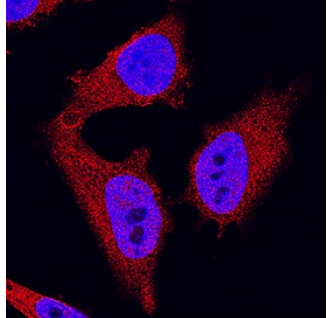
DATA

Western Blot



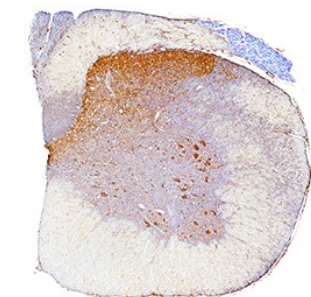
Detection of Human, Mouse, and Rat Zyxin by Western Blot. Western blot shows lysates of Human cervical epithelial carcinoma cell line, PT18 mouse mast/basophil cell line, Neuro-2A mouse neuroblastoma cell line, L6 rat myoblast cell line, and PC-12 rat adrenal pheochromocytoma cell line. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human/Mouse/Rat Zyxin Monoclonal Antibody (Catalog # MAB6977) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Zyxin at approximately 82 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Zyxin in A549 Human Cell Line. Zyxin was detected in immersion fixed A549 human lung carcinoma cell line using Mouse Anti-Human/Mouse/Rat Zyxin Monoclonal Antibody (Catalog # MAB6977) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Immunohistochemistry



Zyxin in Rat Spinal Cord. Zyxin was detected in perfusion fixed frozen sections of rat spinal cord using Mouse Anti-Human/Mouse/Rat Zyxin Monoclonal Antibody (Catalog # MAB6977) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Mouse IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC001). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to motor neurons and dorsal horn. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Zyxin (ZYX), also known as Zyxin 2, is an approximately 80-85 kDa intracellular protein that functions in the regulation of actin cytoskeleton dynamics. Zyxin plays a role in remodeling of the actin cytoskeleton during wound healing, cell migration, cell adhesion, and epithelial-mesenchymal transition. The N-terminal region of Zyxin is proline-rich, while the C-terminal region contains three tandem LIM zinc-binding domains (aa 384-570). Within aa 265-383, human Zyxin shares 81% and 84% aa sequence identity with mouse and rat Zyxin, respectively.