

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human VAV-1 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG _{2A} Clone # 751411
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human Vav-1 Y160 site
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 either lyophilized or as a 0.2 µm filtered solution in PBS.

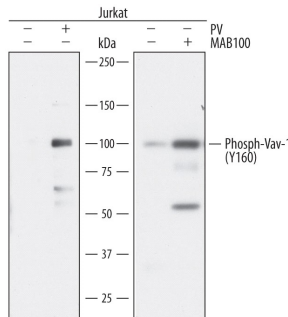
APPLICATIONS

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
Western Blot	0.1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below
Simple Western	1 µg/mL	See Below

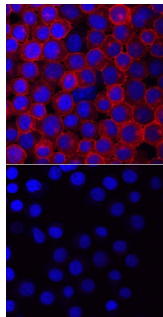
DATA

Western Blot



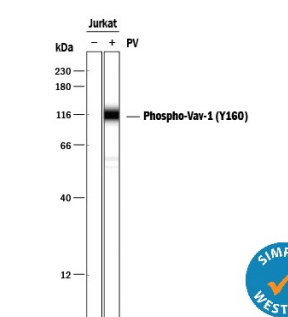
Detection of Human Phospho-Vav-1 (Y160) by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line untreated (-) or treated (+) with 1 mM Pervanadate (PV) for 5 minutes and 10 µg/mL Mouse Anti-Human CD3ε Monoclonal Antibody (Catalog # MAB100) for 15 minutes. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human Phospho-Vav-1 (Y160) Monoclonal Antibody (Catalog # MAB37861) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Phospho-Vav-1 (Y160) at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry




Phospho-Vav-1 (Y160) in Jurkat Human Cell Line. Vav-1 phosphorylated at Y160 was detected in immersion fixed Jurkat human acute T cell leukemia cell line treated with (upper panel) or without (lower panel) Pervanadate using Mouse Anti-Human Phospho-Vav-1 (Y160) Monoclonal Antibody (Catalog # MAB37861) at 10 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. View our protocol for [Fluorescent ICC Staining of Non-adherent Cells](#).

Simple Western



Detection of Human Phospho-Vav-1 (Y160) by Simple Western™. Simple Western lane view shows lysates of Jurkat human acute T cell leukemia cell line untreated (-) or treated (+) with 1 mM Pervanadate (PV) for 5 minutes, loaded at 0.2 mg/mL. A specific band was detected for Human Phospho-Vav-1 (Y160) at approximately 116 kDa (as indicated) using 1 µg/mL of Mouse Anti-Human Phospho-Vav-1 (Y160) Monoclonal Antibody (Catalog # MAB37861). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



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

The Vav-1 proto-oncogene is a 95 kDa guanine nucleotide exchange factor (GEF) for the low molecular weight GTPases of the Rho/Rac family. Vav-1 is a cytosolic protein that is primarily expressed in hematopoietic cells and plays an essential role in the proliferation and activation of T and B cells. It promotes intracellular signaling by its multiple protein binding motifs. Vav-1 is phosphorylated on Y160 after cell adhesion via integrin α v β 3. This phosphorylation is necessary for adhesion-mediated Rho activation and association between α v β 3 and Vav-1. The peptide immunogen represents a sequence that is conserved between human, mouse and rat Vav-1.