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Anti-WAVE1 (Tyr-125), Phosphospecific Antibody

Catalog # AN2023

Product Information

Application	WB, ICC
Primary Accession	Q92558
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	61652

Additional Information

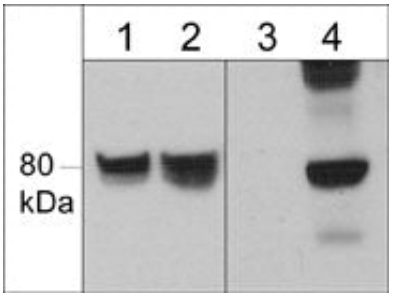
Gene ID	8936
Other Names	Wiskott-Aldrich syndrome verproline, Scar1, WASF1
Dilution	WB~~1:1000 ICC~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-WAVE1 (Tyr-125), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

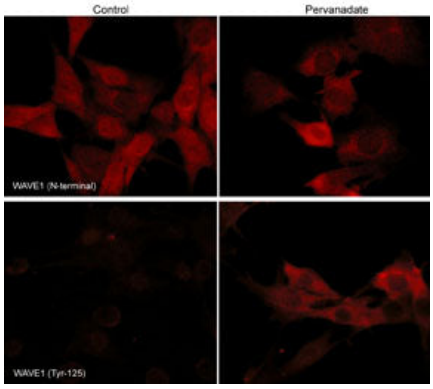
The Wiskott–Aldrich syndrome protein (WASP) family is involved in various pathways that regulate actin cytoskeletal organization. This family includes WASP, N-WASP, and three WAVE/SCAR isoforms, WAVE1, 2, and 3. WAVE proteins play key roles in actin-mediated cell events, such as membrane ruffling and lamellipodia formation. WAVEs contain an N-terminal WAVE homology domain, a basic domain, a Proline-rich region, and carboxy terminal verprolin, cofilin, and acidic (VCA) region. WAVEs are thought to act downstream of the Rac GTPase, connecting Rac activation to induction of Arp 2/3-mediated actin polymerization. Regulation of WAVE activity can occur through tyrosine phosphorylation. Src phosphorylation of WAVE1 at Tyr-125 enhances binding to the Arp2/3 complex, and is required for WAVE inhibition of Arp2/3-mediated stress fiber formation. By contrast, WAVE2 phosphorylation of Tyr-150 by Abl may enhance Arp2/3 complex actin nucleation and microspike formation in fibroblasts. Thus, site-specific tyrosine phosphorylation may be important for controlling specific activities of WAVE proteins.

Images

Western blot of human SYF cSrc transformed cells untreated (lanes 1 & 3) or treated (lanes 2 & 4) with pervanadate (1 mM; 30 min). The blots were probed with anti-WAVE1 (N-terminal region) (lanes 1 & 2) or anti-WAVE



(Tyr-125) (lanes 3 & 4).



Immunocytochemical labeling of phosphorylated WAVE in pervanadate-treated mouse C2C12. The cells were labeled with rabbit polyclonal WAVE1 (N-terminal region) and WAVE (Tyr-125) antibodies, then the antibodies were detected using appropriate secondary antibodies conjugated to Cy3.