

WAVE2 (Central Region)

Cat. # WP1791
Host Rabbit Polyclonal
Size 100 µl

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, WAVEs 1, 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.

References

- Ardern, H. et al. (2006) Cell Motil. Cytosk. 63:6.
Leng, Y. et al. (2005) PNAS 102(4):1098.
Suetsugu, S. et al. (1999) Bioch. Biophys. Res. Comm. 260:296.
Miki, H. et al. (1999) J Biol. Chem. 274(39):27605.

Immunogen:

A synthetic peptide (coupled to KLH) corresponding to amino acid residues in the central region of human WAVE2. This sequence has high homology with similar regions in rat and mouse WAVE2, and has low homology to similar regions in WAVE1 and WAVE3.

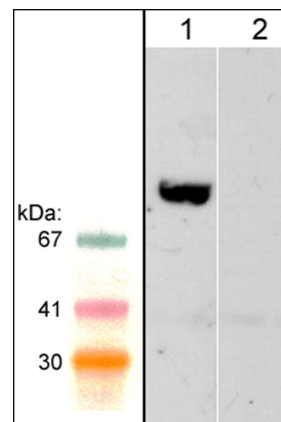
Applications:

WB 1:1,000
ELISA 1:2,000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- WP1731 WAVE1 (N-terminal region) Rabbit Polyclonal
WX1735 WAVE1 (N-terminal region) Peptide
WX1795 WAVE2 (Central Region) Peptide
WP1771 WAVE (Tyr-125), phospho-specific Rabbit Polyclonal
WX1775 phospho-WAVE (Tyr-125) Peptide



Western blot of rat PC12 lysate. The blots were probed with anti-WAVE2 (Central region) in the presence (lane 2) or absence (lane 1) of WAVE2 (Central region) blocking peptide (WX1795).

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody was affinity purified using WAVE2 (Central region) peptide (without carrier). The antibody detects a 78 kDa* protein corresponding to the molecular mass of WAVE2 on SDS-PAGE immunoblots of rat PC12 cells.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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