

# Vav3 (a.a. 293-305)

Cat. # VP2701

Host Rabbit Polyclonal

Size 100 µl

## Background:

The Vav family of Rho-guanine nucleotide exchange factors, Vav1, Vav2, and Vav3, have central roles in transducing signals from cell surface receptors, such as integrin, growth factor and immune cell receptors to the cytoskeleton. This role includes receptor-mediated changes in the actin cytoskeleton and cell motility. Vav1 expression is normally restricted to hematopoietic cells, while Vav2 and Vav3 are more widely expressed. All three Vav isoforms have been shown to be abnormally expressed in several types of cancer. Vavs are composed of multiple domains, including a Dbl homology domain, a calponin homology domain, an acidic amino acid region, a pleckstrin homology domain, a cysteine-rich domain, and SH3 and SH2 domains. Vav activity is regulated by the phosphorylation status of several conserved tyrosine residues in the acidic region (In Vav2: Tyr-142, Tyr-159, and Tyr-172). These tyrosine residues are able to participate in autoinhibitory interactions with the Dbl homology domain and this interaction is prevented after phosphorylation of these sites leading to activation of Vav GEF activity.

## References

- Movilla, N. et al. (1999) Mol. Cell. Biol. 19:7870.  
Aghazadeh, B. (2000) Cell 102:625.  
Wilsbacher, J.L. et al. (2006) Cell Comm. Signal. 4:5.

## Immunogen:

A synthetic peptide (coupled to KLH) corresponding to amino acid residues in the Dbl homology domain of human Vav3. This sequence has high homology with similar regions in rat and mouse Vav3, and has low homology to other Vav family members.

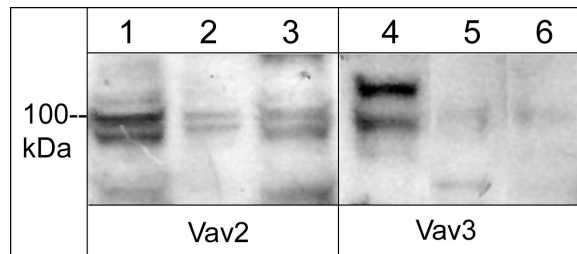
## Applications:

WB 1:1000  
ELISA 1:2000

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:

- VP2481 Vav (a.a. 165-174) [Conserved site] Rabbit Polyclonal  
VP2521 Vav2 (a.a. 309-322) Rabbit Polyclonal  
VP2561 Vav2 (Tyr-142), phospho-specific [Conserved site] Rabbit Polyclonal  
VP2641 Vav2 (Tyr-172), phospho-specific [Conserved site] Rabbit Polyclonal  
VX2705 Vav3 (a.a. 293-305) Peptide



Western blot of human Jurkat (lanes 1 & 4), HUVEC (lanes 2 & 5), and A431 (lanes 3 & 6) cells. The blots were probed with anti-Vav2 (a.a. 309-322) at a dilution of 1:500 (lanes 1-3) and anti-Vav3 (a.a. 293-305) at 1:500 (lanes 4-6).

## 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 Vav3 (a.a. 293-305) peptide (without carrier). The antibody detects a 98 kDa\* protein corresponding to the molecular mass of Vav3 on SDS-PAGE immunoblots of human Jurkat cells. The antibody also strongly detects an unidentified protein at 120 kDa in Jurkat and K562.

\*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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