Cat. # WP2401 Host Rabbit Polyclonal Size 100µl

Background:

Members of the Wiskott-Aldrich sydrome protein (WASP) family regulate the formation of actin-based cell structures in many cell types. These proteins contain C-terminal actinbinding domains that can stimulate actin polymerization. In addition, these proteins bind the ARP2/3 complex, which can nucleate actin polymerization at sites that lead to branched actin structures. WASP is expressed primarily in hematopoietic cells, while its homolog N-WASP is widely expressed. These proteins have 48% identity in human with the highest homology in the functional regions of these proteins. Phosphorylation regulates the activity of both proteins. Dual phosphorylation of WASP on serine 483 and 484 by casein kinases increase the affinity for the ARP2/3 complex. Thus, dual serine phosphorylation may be important for formation of actin-based structures in various cell types.

References:

Higgs, H.N. & Pollard, T.D. (2001) Annu Rev Biochem 70:649-676. Cory, G.O. et al. (2003) Mol Cell. 11(5):1229-39.

2 3 4 5 6 + + + AP unphosphorylated phospho N-WASP N-WASP N-WASP (S484/S485) (S484/S485)

Western blot analysis of control and alkaline phosphatase-treated (AP) neonatal rat brain lysate (20 μ g/lane). Blots were probed with anti-N-WASP (Lanes 1 & 2), anti-phospho-N-WASP (S484/S485) (Lanes 3 & 4), or anti-unphosphorylated-N-WASP (S484/S485) (Lanes 5 & 6).

Immunogen:

Unphosphorylated N-WASP (S484/S485) synthetic peptide (coupled to KLH) corresponding to amino acid residues around serine 484 and 485 of human N-WASP. The human WASP sequence has a similar peptide sequence surrounding serine 483 and 484.

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100μ l 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.

Applications:

Western blotting1:1000 dilution[†]ELISA1:2000 dilutionEnd user should determine optimal dilution for their particular applications and experiments.

 † Membrane was incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.

Specificity:

This antibody was cross-adsorbed to phospho-N-WASP (S484/S485) peptide (without carrier) then affinity purified using unphosphorylated N-WASP (S484/S485) peptide (without carrier). The antibody detects a 65 kDa* protein on SDS-PAGE immunoblots of rat brain and SKN-SH cell lysates that are treated with alkaline phosphatase. Only low levels of unphosphorylated WASP or N-WASP are detected in untreated rat brain, Jurkat, and A431 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.

Related Products:

 WP2201
 N-WASP (S484/S485) (WASP (S483/S484)), phospho-specific Rabbit Polyclonal

 WP2601
 N-WASP (Tyr-256), phospho-specific Rabbit Polyclonal

 WP2001
 N-WASP Rabbit Polyclonal

 WP2001
 N-WASP Rabbit Polyclonal

 WX2405
 nonphospho-N-WASP (S484/S485) Peptide

WP2101 WASP/N-WASP Rabbit Polyclonal WX2205 phospho-N-WASP (S484/S485) Peptide

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