

N-WASP Phospho-Regulation Antibody Sampler Kit

Catalog # WK6110

Kit Components:

Catalog#	Description	Host	Size	Applications	Species Reactivity	MW (kDa)
WP2601	N-WASP (Tyr-256), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	63/65
WP2201	N-WASP (Ser-484/Ser-485), phospho-specific	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	63/65
WP2401	Unphosphorylated N-WASP (Ser-484/Ser-485)	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	63/65
WP2001	N-WASP	Rabbit pAb	50 µl	WB, E	H, R, M	65
WP2101	WASP/N-WASP	Rabbit pAb	50 µl	WB, E, ICC	H, R, M	63/65

Applications: WB = western blot, E = ELISA, ICC = immunocytochemistry.

Species: H = Human, R = Rat, M = Mouse

Kit Summary:

The N-WASP phospho-regulation antibody sampler kit can be used to examine phosphorylation of N-WASP at Tyr-256 and Ser-484/Ser-485. For the latter site, phosphorylated relative to unphosphorylated Ser-484/Ser-485 can be monitored. In addition, the conserved sites in WASP (Tyr-291 and Ser-483/Ser-484) can also be examined. The kit includes polyclonal antibodies to monitor total expression levels of N-WASP and WASP.

Background:

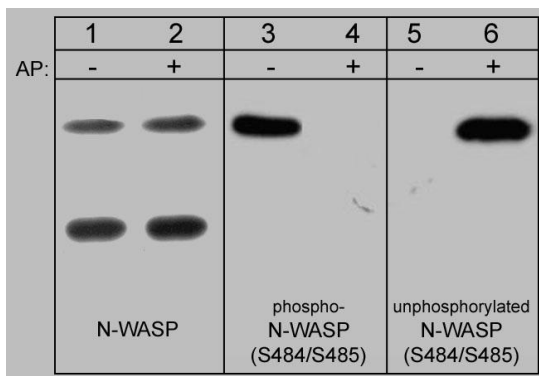
Members of the Wiskott-Aldrich syndrome protein (WASP) family regulate the formation of actin-based cell structures in many cell types. These proteins contain C-terminal actin-binding domains that can stimulate actin polymerization. WASP is expressed primarily in hematopoietic cells, while its homolog N-WASP is widely expressed. These proteins have 48% identity in human with higher homology in the functional regions of these proteins. Phosphorylation at serine and tyrosine residues 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. WASP is tyrosine phosphorylated at tyrosine 291 after antigen receptor activation in B-cells and collagen stimulation of platelets. Phosphorylation of the analogous site in N-WASP (Tyr-256) stimulates its activity, reduces nuclear N-WASP, and is required for neurite extension.

Buffers and Storage:

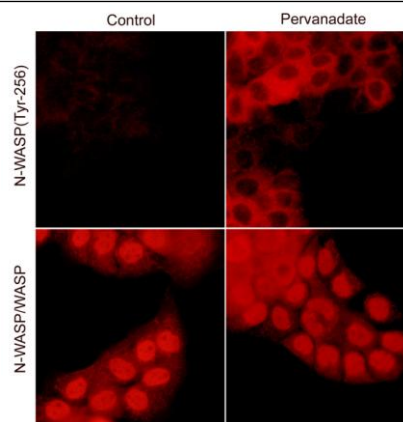
Rabbit polyclonal antibodies are supplied in 50µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

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.
Baba, Y. et al. (1999) Blood 93:2003.
Torres, E. & Rosen, M.K. (2003) Mol Cell 11:1215.
Wu, X. et al. (2004) J Biol Chem 279(10):9565.



Western blot analysis of control and alkaline phosphatase-treated (AP) neonatal rat brain lysate (20 µg/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).



Immunocytochemical labeling of N-WASP in control and pervanadate-treated A431 cells. The cells were labeled with rabbit polyclonal N-WASP/WASP (WP2101) or rabbit polyclonal N-WASP (Tyr-256) (WP2601) antibodies, then the antibodies were detected using appropriate secondary antibody conjugated to DyLight 594.

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