


#4860
Store at -20°C

WASP Antibody



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M	Endogenous	60 human, 62 mouse	Rabbit	#P42768	7454

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	WASP Antibody detects endogenous levels of total WASP protein. The antibody does not cross-react with N-WASP.	
Source / Purification	Polyclonal Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human WASP. Antibodies are purified using protein A and peptide affinity chromatography.	
Background	<p>Wiskott-Aldrich syndrome proteins (WASPs) mediate actin dynamics by activating the Arp2/3 actin nucleation complex in response to activated Rho family GTPases. In mammals, five WASP family members have been described. Hematopoietic WASP and ubiquitously expressed N-WASP are autoinhibited in unstimulated cells. Upon stimulation they are activated by cdc42, which relieves the autoinhibition in conjunction with phosphatidyl inositol 4,5-bisphosphate. Three WAVE (Wasf, SCAR) family proteins are similar in sequence to WASP and N-WASP but lack the WASP/N-WASP autoinhibition domains and are indirectly activated by Rac (reviewed in 1). Both WASP and WAVE functions appear to be essential, as knockout of either N-WASP or Scar-2 in mice results in cardiac and neuronal defects and embryonic lethality (2,3). Loss of WASP results in immune system defects and fewer immune cells (4). WAVE-2 (WASF2) is widely distributed, while WAVE-1 and WAVE-3 are strongly expressed in brain (5). WAVE-3 may act as a tumor suppressor in neuroblastoma, a childhood disease of the sympathetic nervous system (6). Increased expression of WAVE-3 is seen in breast cancer, and studies in breast adenocarcinoma cells indicate that WAVE-3 regulates breast cancer progression, invasion and metastasis through the p38 mitogen-activated protein kinase (MAPK) pathway (7,8).</p>	
Background References	<ol style="list-style-type: none"> 1. Millard, T.H. et al. (2004) <i>Biochem J.</i> 380, 1-17. 2. Yan, C. et al. (2003) <i>EMBO J.</i> 22, 3602-3612. 3. Snapper, S.B. et al. (2001) <i>Nat. Cell Biol.</i> 3, 897-904. 4. Zhang, J. et al. (1999) <i>J. Exp. Med.</i> 190, 1329-4132. 5. Suetsugu, S. et al. (1999) <i>Biochem. Biophys. Res. Commun.</i> 260, 296-302. 6. Sossey-Alaoui, K. et al. (2002) <i>Oncogene</i> 21, 5967-5974. 7. Sossey-Alaoui, K. et al. (2005) <i>Exp. Cell Res.</i> 308, 135-145. 8. Sossey-Alaoui, K. et al. (2007) <i>Am J Pathol</i> 170, 2112-21. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected

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