

**#4860** Store at -20°C

# WASP Antibody

100 µl  
 (10 western blots)



**Orders** ■ 877-616-CELL (2355)  
 orders@cellsignal.com  
**Support** ■ 877-678-TECH (8324)  
 info@cellsignal.com  
**Web** ■ www.cellsignal.com

rev. 07/26/10

**This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.**

**Entrez-Gene ID** #7454  
**Swiss-Prot Acc.** #P42768

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W, IP Endogenous	H, M	60 kDa Human 62 kDa Mouse	Rabbit**

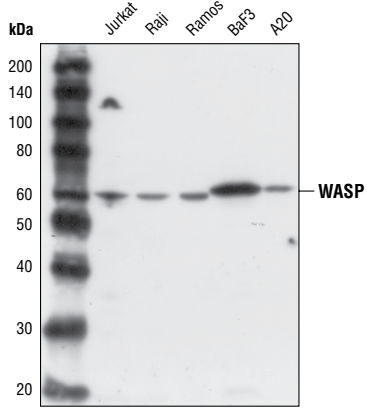
**Background:** Wiscott-Aldrich syndrome proteins (WASPs) mediate actin dynamics by activating the Arp2/3 actin nucleation complex in response to activated Rho family GTPases. In mammals, five WASP family members have been described. Hematopoietic WASP and ubiquitously expressed N-WASP are autoinhibited in unstimulated cells. Upon stimulation they are activated by cdc42, which relieves the autoinhibition in conjunction with phosphatidylinositol 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).

**Specificity/Sensitivity:** WASP Antibody detects endogenous levels of total WASP protein. The antibody does not cross-react with N-WASP.

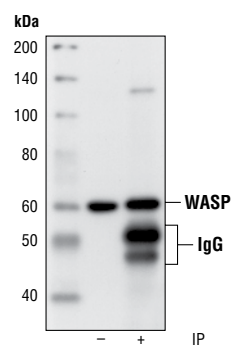
**Source/Purification:** Polyclonal Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the sequence of human WASP. Antibodies are purified using protein A and peptide affinity chromatography.

**Background References:**

- (1) Millard, T.H. et al. (2004) *Biochem J.* 380, 1-17.
- (2) Yan, C. et al. (2003) *EMBO J.* 22, 3602-3612.
- (3) Snapper, S.B. et al. (2001) *Nat. Cell Biol.* 3, 897-904.
- (4) Zhang, J. et al. (1999) *J. Exp. Med.* 190, 1329-4132.
- (5) Suetsugu, S. et al. (1999) *Biochem. Biophys. Res. Commun.* 260, 296-302.
- (6) Sossey-Alaoui, K. et al. (2002) *Oncogene* 21, 5967-5974.
- (7) Sossey-Alaoui, K. et al. (2005) *Exp. Cell Res.* 308, 135-145.
- (8) Sossey-Alaoui, K. et al. (2007) *Am J Pathol* 170, 2112-21.



Western blot analysis of extracts from various cell lines, using WASP Antibody.



Immunoprecipitation of WASP from Ramos cells, followed by Western blot analysis, using WASP Antibody.

**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.

**\*Species cross-reactivity is determined by western blot.**

**\*\*Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

Western blotting	1:1000
Immunoprecipitation	1:50

**For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).**

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**

**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.**

**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.