

## Background

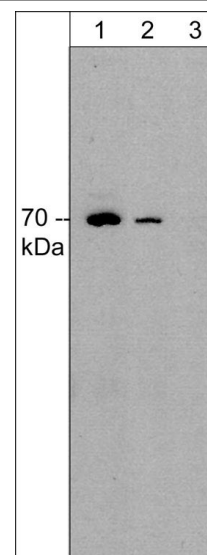
The Wiskott–Aldrich syndrome protein (WASP) family functions downstream of Rho GTPases to mediate the branched-actin network formation required for cytoskeletal remodeling, intracellular transport, and cell motility. This family includes WASP, N-WASP, and three WAVE/SCAR isoforms (WAVE1, 2, and 3). Two new WASP subfamilies are WASH and WHAMM. WASH is an F-actin binding protein that can promote Arp2/3-mediated branch actin nucleation. The WASH protein contains two WASH homology domains, a proline-rich region, and a C-terminal VCA domain. WASH can interact with dynamin, FAM21, and tubulin, and WASH activity may be regulated downstream of Rho GTPases. WASH interaction with FAM21 has been implicated in endosome sorting, and inactivation of WASH leads to endosome tubulation. Thus, WASH may be a critical element in the regulation of the actin filament and microtubule networks that mediate endosomal sorting and fission.

## Background References

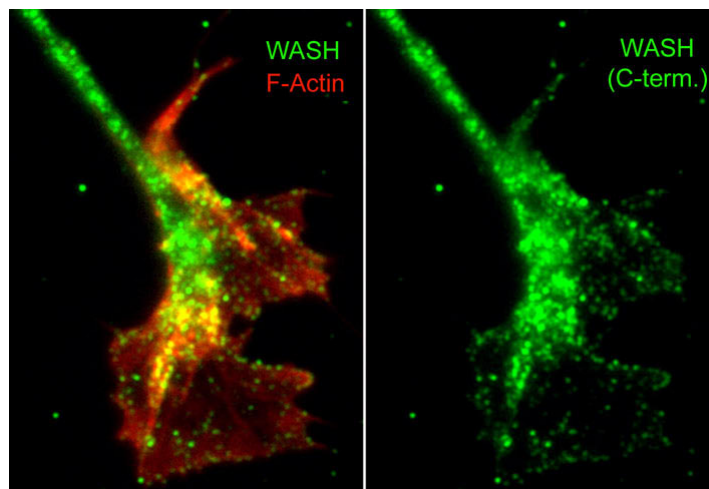
Linardopoulou, E.V. et al. (2007) PLoS Genet. 3:e237.  
 Derivery, E. et al. (2009) Dev. Cell. 17:712.  
 Gomez, T.S. & Billadeau, D.D. (2009) Dev. Cell. 17:699.  
 Liu, R. et al. (2009) Development. 136:2849.

## Product Citations

Wang, F. et al. (2014) Sci Rep. 7(4):5596.  
*WB: mouse oocytes*



Western blot of human Jurkat cells (lanes 1-3). The blots were probed with anti-WASH (C-terminal region) rabbit polyclonal antibody at 1:250 (lane 1) or at 1:1000 in the absence (lane 2) or presence of WASH blocking peptide (WX4005) (lane 3).



Immunocytochemical labeling of WASH relative to F-actin in chick DRG neurons. The cells were labeled with rabbit polyclonal WASH (C-terminal region) antibody (WP4001), then the antibody was detected using appropriate secondary antibody (Green). On the left, this WASH labeling is compared to F-actin staining (Red). (Image provided by Dr. Gianluca Gallo at Drexel University).

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**Immunogen****Uniprot ID: A8K0Z3**

WASH synthetic peptide (coupled to carrier protein) corresponds to amino acids in the C-terminal region of human WASH. This sequence is highly conserved in rat, mouse, and chicken WASH, and has low homology to other WASP family members.

**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. Stable for 1 year.

**Applications**

WB	1:1000
ELISA	1:2000
ICC	1:200

**Species Reactivity**

Hu, Rt, Ms, Ck

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, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.

Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot  
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

**Specificity**

This antibody was affinity purified using WASH (C-terminal region) peptide (without carrier). The antibody detects a 70 kDa\* protein corresponding to the molecular mass of WASH on SDS-PAGE immunoblots of human Jurkat cells.

\*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.

"Native" western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

**Related Products**

WK6110 N-WASP Phospho-Regulation Antibody Sampler Kit

WP1731 WAVE1 (N-terminal region) Rabbit Polyclonal

WP1791 WAVE2 (Central region) Rabbit Polyclonal

WP2001 N-WASP Rabbit Polyclonal

WP2101 WASP / N-WASP Rabbit Polyclonal

WX4005 WASH (C-terminal region) Blocking Peptide

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