

Product datasheet for **RN201376**

Washc1 (NM_001127390) Rat Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Washc1 (NM_001127390) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Washc1
Synonyms:	ORF19; Wash; Wash1; Wash2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >RN201376 representing NM_001127390
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGC**

ATGACGGCGGTGAAGACCCAGCACTCCTTGGCAGGCCAGGTTTATGCGGTGCCCCCTCATCCAGCCAGACC
 TCGCTCGAGAGGAGCAATCCAGCAAGTGGCAGACGCCCTGCAGTACTTACAGAACATCTCCGAGACAT
 CTTAGAGGATCTCCAGCGAGTAGAGCTGAGCCGACGCCAGCTGCAGGCCATTGGGGAGAGGGTCTCC
 TTGGCCAGGCTAAGATAGAGAAGATCAAGGGCAGTAAGAAGGCCATCAAGGTCTTTTCCAGTGCCAAGT
 ACCCAGCCCCGGAGCACCTGCAGGAGTATAACTCCGTCTTTACTGGAGCCCTGGACCCTGGTCTGCAGAG
 AAGACCCCGGTACAGGATCCAGAGCAAGCACCGCCCACTGGATGAGCGGGCTCTGCAGGAGAAGCTGAAA
 TACTTTCCCGTGTGTGAGCACCAAGTCGAGCCTGAGGATGAGGCTGAGGAGGGAATTGGGGTCTTC
 CCAGCAACATTAGCTCCATCAGTCCCTGCTGCTCTTCAACACCACAGAAAACCTGTATAAGAAGTATGT
 TTTCTGGACCCTCTGGCTGGTGCAGTAACGAAAACACACCATGCTGGGCACAGAGGAGGAGAAGTTG
 TTCGATGCTCCTCTGTCCATCAGCAAGAGAGAGCAGCTGGAGCAGCCAGCTCCAGAAAACCTTCTATG
 TGCCAGGCCTGGGCCAGGTTCTGAGATCGATGTGCCATCCTACCTACCCGACTTGCCTGGCGTCGAGA
 CGACCTGATGTACAGTGGGATTTGGGTCCCGGTATTGCCCGTCCGCTCCTGGTGCTATTCCAGAGCTG
 CCTGCCTTCCATACGGAGGTGGCGGAACCTTCCAGCCAGAACGGGAGGATGGAGCGCTGTTGGCACAC
 CACCGCTCCTCCTCCTCCTCCACCGCCACCTCCCCAGCTCCCACAGCGGTGGTCAAGTGGCCCCAAC
 ACCGATGTCCCCTGATGTGGTAACCGTGACTGGCAAGGTTGCCAGGGAAGAGGACTCTGGCAGCGGTGAG
 GCCCACTCAGCCTCTGTTCAAGGAGCCCTAAGGAGGTGGTTGACCCCTCCAGCGGCCGGCCACTCTGC
 TTGAGTCCATCCGCCAAGCCGGGGCATTGGCAAGGCCAAGCTGCGCAGTGTCAAGGAACGAAGCTTGA
 GAAGAAGAAACAGAAGGAGCAGGAGCAAGTGAGAGCTACCAGCCAGGCGGGGACTTGATGTCAGATCTC
 TTCAACAAACTCGTCATGAGGCGAAAGGTATCTCTGAAAAGGACCTGGCACTGGCACCAGTGAGGGC
 CTGGTGGAGCCTTCAGTGAATGTCAGACTCCATTCCACCTCTGCCGCCCCACAGCAGCCAGCAGGAGA
 CGAGGACGAGGATGACTGGGAGTCT**AA**

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM_001127390
- Insert Size:** 1428 bp
- OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
- Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001127390.1](#), [NP_001120862.1](#)

RefSeq Size: 1885 bp

RefSeq ORF: 1428 bp

Locus ID: 367328

UniProt ID: [B2RYF7](#)

Cytogenetics: 9q37

Gene Summary: Acts as a nucleation-promoting factor at the surface of endosomes, where it recruits and activates the Arp2/3 complex to induce actin polymerization, playing a key role in the fission of tubules that serve as transport intermediates during endosome sorting. Its assembly in the WASH core complex seems to inhibit its NPF activity and via WASHC2 is required for its membrane targeting. Regulates the trafficking of endosomal alpha5beta1 integrin to the plasma membrane and involved in invasive cell migration. In T-cells involved in endosome-to-membrane recycling of receptors including T-cell receptor (TCR), CD28 and ITGAL; proposed to be implicated in T-cell proliferation and effector function. In dendritic cells involved in endosome-to-membrane recycling of major histocompatibility complex (MHC) class II probably involving retromer and subsequently allowing antigen sampling, loading and presentation during T-cell activation. Involved in cytokinesis and following polar body extrusion during oocyte meiotic maturation. Involved in Arp2/3 complex-dependent actin assembly driving Salmonella typhimurium invasion independent of ruffling. Involved in the exocytosis of MMP14 leading to matrix remodeling during invasive migration and implicating late endosome-to-plasma membrane tubular connections and cooperation with the exocyst complex. Involved in negative regulation of autophagy independently from its role in endosomal sorting by inhibiting BECN1 ubiquitination to inactivate PIK3C3/Vps34 activity. [UniProtKB/Swiss-Prot Function]