

## Product datasheet for RN210867

### Washc2c (NM\_199207) Rat Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Washc2c (NM\_199207) Rat Untagged Clone  
**Tag:** Tag Free  
**Symbol:** Washc2c  
**Synonyms:** Fam21; Fam21c; NP61201; Washc2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Fully Sequenced ORF:** >RN210867 representing NM\_199207  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAACCGGACGAGCCCGGACTCGGAGCAGCCTCCGGCGTCCGAACCCGTGTGGGAACGGCCCTGGTCGG  
 TGGAGGAGATCCGCCGAGCAGTCAGAAGTGGTCGCTGGCGGCTGACGCTGGTCTTCTACAGTTTCTACA  
 GGAGTTCTCACAGCAGACTATCTCCAGGACTCACGAAATCAAGAAGCAGGTGGATGGATTAATTCAGGAG  
 ACCAAGGCCACACATTGTCGTCTGCATAATGTCTTCAACGACTTCCTCATGCTGTCTAACACCCAGTTCA  
 TTGAGAATCGGGTGTACGATGAGGAAGTGGAGGATCAGGCGCTCAAGACGGAGGCGGAAAAAGCTGAGCA  
 GGAGAAGACTCGGGAACAGAAAGAAATAGATCTGATTCCCTAAAGTCCAGGAGGCTGTGAAGTATGGGTTA  
 CAGGTCCTGGATAGTGCCTTTGAGCAACTTGACATAAAAAGCAGGGAATTCGGACTCTGAAGAGGAAGATG  
 CCAATGAGCGGGTGAATTGATCCTTGAGCCAAAGGACCTCTACATTGACCGGCCCTTTGCCCTACCTCAT  
 CGGGTCGAAGCTCTTCAATGGAACAGGAAGACGTGGGGCTTGAGAGCTGTCCAGCGAAGAAGGCTCTGTG  
 GGCAGTGACCGCGGGAGCATTGTGGACAGTGAAGATGAGAAAGAAGAGGAGGAGTCAAGATGATTTTGCCA  
 GTCATAGTGACAATGAACAAAACCAGCATATCACACAGATGAGTGACGAAGAAGAGGATGATGATGCTGA  
 CCTCTTTGCTGACTCTGAGAAGGAGGGGATGATATCGAGGATATTGAGGAAAGTCTAAGTCTAAAAGA  
 CCTACGCTTTTTGCGGATGAGCTGGCTCGGATCAAAGGAGATGTCTCAAACCGCGGAAAGAGGGGAC  
 ACACAGATGGAAGCCTCAGAGGACAGTGAAGGAGAAGAAGGAAAGGAGAACCCTGCAGATGATGAGGA  
 AGACATCTTGTCCACCCCGGCTGACTGATGAAGACTTCTCACCGTTTGGCTCTAGAGGTGGTCTG  
 TTCAGTGATCGGCAGGGCTTTTTGATGATGATGATGAGAGTGACCTCTTCAAGGAAGCTCCCCGGGGC  
 AGCCAGCCCAAGGTCCTGTCAAGTGAAGAATCACCTCCATCCCCTAAACCTGGAAAGAAAATCCCAGCAGG  
 GGCTGTTTCTGTATTTTAGGGTAACTGATGTGTCTGGGTCCACCTCTGCCCATCACTGAAGGAGTTC  
 CAGAAACATGAGCAGTCCACTCCAGGGAAGAGCCACATTTGCCAGCTCTACTGGCTCTTTGATGATG  
 ATGATAACGACAGTGAAGATGATAACTTTTTATGCCATCTTCTAGCAAGCCTTCTAAGACCGACAA  
 AGTCAAGCCACCACCATTATCTTTGATGATGACGAAGGAGATCTGTTTAAAGAAAAACAACAGCTTTG



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CCAGCAGCTTCTGTCAGCCAGACAGATGAAAACAAAGCACGGACAGATAAACGATCACCTTACCTTCTA  
 GCAAAAATCCGAAGCTTGTATCAGAAAACAAAGACTCAGAAAAGTTTGTTCAGATGAAGAAGACTCTGA  
 GGATTTGTTTTCTTCTCAAAGTTCAAGTAAGACGAAAAGTGATCAGTTCTGTCCAGCCAACCCAGCA  
 TCGGTCTCCCTTTTTGGTGATGAAGATGAAGAGGACAATCTTTTTGGGAGTGACAGCTAAGAAGCAGA  
 CTTTCATCTCTGCCACCTCAGAGTCAGGAGAAAAGCAAACCTTCAGAGCAGCCCCAAAGAAAAGCATCTGC  
 CTTGTTACAGCAGTGACGAGGAGGACCAGTGGAGTGTGCTGATTACAGACCAAGTTAGCCTCCGAGAGA  
 AAGTCCAAGGAGAGAGGTTGGACGCGGGACCAACCAAGGCCAAGAAGCGAAGGCTGTGAAAAAGACCA  
 ATCTCTTTGAGGAGGAGGATGATGATGGAGTCGATCTCTTTGCTATTGCGAAGGACGCCAAAAGAAGAC  
 TCAGAGAACCTCACTTCTGTTTGAAGATGACACTGATAGCGGAAGCTCTCTGTTACGCTTCTCTCTACA  
 TCTGTTCTCTCGACGAACGAAAAAGAGAGCATCCCCAAGGTGCCGTTGTTGTTAGTGATGAAGAGG  
 ACAGTGAGGTACCATCTGGTGTGAAACCTGTGGATCTGAAGGCTGAGAATGCCGCGGCGTCCCAGAGGT  
 GGGGAGTGCTGATGTGGCAATGTGCCACAGAAGGAAGGACTTTTACCCACATCTGATCAGGAAGCAGGC  
 GGGCCTTCTGATATATTTCTTCTCATCTCCACTGGACAAGGAGCCAAGGGTAGGACCAAACTGTCC  
 TTAGTTTGTGTTGATGAGGACGAGGACAAAGTAGAAGATGACAGCAACACCTGTGCGCCACAAGGTGGACT  
 GAAAAGGGTGTCAAACCTGACCGCCCTAAGAGCACAGGAGTCTTTCAGGATGAAGAGCTGCTTTTC  
 AGCCACAAGCTGCAAAAGGACAACGACCCAGATGTTGATCTTTTCGCTGGTACCAAAAAACCAGGTTGT  
 CCATGCCAAGTGGGGGAGCCTCTTTGGTGATGACGACGATGATGATCTTTCAGCACTGCCAAGACTCA  
 GCCTGCACAGCCTGTGGTACCAGAAAAAAGGAACACTGAGAAAAGACCACAAACCTCCTGAATTGACT  
 GAAGGTAGCAAAGAGAAAAGCACATGAAAAGCAGAAAACGCCCCAGGATCTTCAGGTCTCACTCCATTTA  
 AAAGCAGAGAGCCATCCAGTCGCATCGGGAAAATACAAGCAAATTTAGCAATTAACCCAGCCACTTTGCT  
 GCCCTCAGTGGTCCGCAGATCCCCGGAGCAAAGCCTGCTTCGTGTGAAGTAGCTTTTCTTCATCTGAG  
 CCTGCAAGGAGCCACATCCGGGAAGCTGTGCCACTCTTCTGGGAGTGAGGAGGCTGGTGTGAGTTTCG  
 ATCTTCTGCCAGGCAGACACTTACACAGTGCAACAAGGGTGTGCAAAAGTGAGAGGAAAAGAGGAG  
 ACCACAGACCCGTGCTGCTCGGGCGCTGGCTGCCAGGAGTCCAGCGAGGCTGAGGACGTGACCATTGAT  
 AGAGGACCTGTTACACAGTTGAGCAGTAGTCTGTCTTACCAAACGGCCATCAACCTCTTCTGCAGCCTA  
 GGATGGCCAGTGGAGAGACCAGCTCTGAAAAGCCATGGCCGTACCTTGGGAAGGTGGTCTGTTTTATC  
 TGCAGTGGACAGAAGCTTCTTTGAAAAGTCTCTGCCTCAGACTGGAAATGAGGCCACCTGTTTGATTCT  
 GGGGACATTTTCCCAAGAGCACAGGATCACAGTCCATGGAGGGAGCAAGTGTCAAGGCAGGGGAGACCC  
 CAGCCCACTCGTCAGCAGGGCGGAAGGAGAAGAGCCTGGTATTTCTGATCTTAGTGAGGCCAGCGGTGT  
 CGATGACCTTTTCCAGTCTGCCAAGCCAAGACCAAAAAGAAAAGAAACCTTTCCCTCTTGAAGAT  
 GAGGAGGACCTTTTGCAGATCAGAAAAGCAAAAGAATCAGTGGAAATCTGACAGCCATCAGGACGTTG  
 TGTCAAAAACCTAAGACATCTTTGAGGATGATATATTTGCTACGGAAGCAATTAAGAAGCCTTTTCCAAA  
 AAAAAGAGAGAAGGAGAGAACTTTGGAACCCAACCTATTTGATGATAATATTGATATCTTCGCTGACTTG  
 ACTGTGAAACCCAAAGAAAAGCCAAAAAGAAAGTACAGCCAAGTCCATGTTTGACGATGATACAGATG  
 ATATTTTCTCTGTCGAGGCTAAAGCATCTAAACCCAAAAGCCAATCTGCTGAGGACGATCTGA  
 ATTAAGGTCTGAGAACAAAGTGTCCAACATTTTGTGATGACCTCTGAATGCCTTTGGAAGCCAGTAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:**

SgfI-MluI

**ACCN:**

NM\_199207

**Insert Size:**

3987 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\\_199207.1](#), [NP\\_954677.1](#)

**RefSeq Size:** 4269 bp

**RefSeq ORF:** 3987 bp

**Locus ID:** 297530

**UniProt ID:** [Q80X08](#)

**Cytogenetics:** 4q42

**Gene Summary:** Acts at least in part as component of the WASH core complex whose assembly at the surface of endosomes inhibits WASH nucleation-promoting factor (NPF) activity in recruiting and activating the Arp2/3 complex to induce actin polymerization and is involved in the fission of tubules that serve as transport intermediates during endosome sorting. Mediates the recruitment of the WASH core complex to endosome membranes via binding to phospholipids and VPS35 of the retromer CSC. Mediates the recruitment of the F-actin-capping protein dimer to the WASH core complex probably promoting localized F-actin polymerization needed for vesicle scission. Via its C-terminus binds various phospholipids, most strongly phosphatidylinositol 4-phosphate (PtdIns-(4)P), phosphatidylinositol 5-phosphate (PtdIns-(5)P) and phosphatidylinositol 3,5-bisphosphate (PtdIns-(3,5)P2). Involved in the endosome-to-plasma membrane trafficking and recycling of SNX27-retromer-dependent cargo proteins, such as GLUT1. Required for the association of DNAJC13, ENTR1, ANKRD50 with retromer CSC subunit VPS35. Required for the endosomal recruitment of CCC and retriever complexes subunits COMMD1 and CCDC93 as well as the retrievere complex subunit VPS35L.[UniProtKB/Swiss-Prot Function]