

Product datasheet for MC201961

Washc1 (NM_001037757) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: Washc1 (NM_001037757) Mouse Untagged Clone

Tag: Tag Free
Symbol: Washc1

Synonyms: 1110049F14Rik; ORF19; Wash; Wash1

Mammalian Cell

Selection:

Neomycin

Vector: PCMV6-Kan/Neo (PCMV6KN)

E. coli Selection: Kanamycin (25 ug/mL)

Fully Sequenced ORF: >BC025839 sequence for NM_001037757

GAGGACGCCGCCTTGGGGCATCATGACACCGGTGAAGACCCAGTGCTCCTTGGCGGGCCAGCTTTATGCA GTGCCCCTCATCCAGCCCGACCTGCGACGAGGGGGGGGCAATCCAGCAAGTGGCAGATGCCCTGCAGTACC TACAGAACATCTCTGGAGACATCTTCAGCAGGATCTCCCGACGAGTAGAGCTGAGTCGGCGCCAGCTGCA GGCCATTAGTGAGAGGGTCTCCTTGGCCCAGGCTAAGATAGAGAAGATCAAGGGCAGTAAGAAGGCCATC AAGGTCTTTTCTAGTGCCAAGTACCCAGCACCAGAGCACCTGCAGGAATACGGCTCCATCTTTACTGGCG GAGGAGGGACTTGGGGGTCTTCCCAGCAACATCAGCTCCATCAGCTCCCTGCTGCTCTTCAACACCACAG CCGATTTACCCGGCGTCGCAGACGACCTGATGTACAGTGCGGATTTGGGCCCTGGCATTGCCCCGTCTGC AATGAAGTACTGTTGGCAGCACCGCCCCCGCCTCCTCCCCCACCGCCGCCACCTCCCCAGGCTCCCACAG CATTGGTCAGTACCCCACAGCCACCGATGTTCCCTGACATGGCAACTGCTGCTGGCCAGGTTGCCAGGGA AGAAGACTCTAGCAGCAGCATGGCCCACACAGCCTCTGTTCAGGGAGCCCCTAAGGAGGTGGTTGACCCC TCCAGTGGCCGGGCCACTCTGCTCGAGTCCATCCGCCAAGCTGGGGGCATTGGCAAGGCCAAGCTACGCA GCGTGAAGGAGCGCAAACTGGAGAAGAAGAACAGAAGGAGCAGGAGCCAAGTGAGAGCCACGAGCCAAGG TGGGGACTTGATGTCAGATCTCTTCAACAAACTTGTCATGAGGCGCAAAGGTATCTCTGGAAAGGGACCT AGCACTGGAACCAGTGAGGGACCTGGAGGAGCCTTCTCTCGAATGTCAGACTCCATCCCACCGCTGCCAC CCCCACAGCAGCCGGCAGGAGACGAGGATGAGGAGGACTGGGAGTCCTAAGAGTGCTTTGGCCATTCTCC CACATGGCAGAGCAGCTGGCAGGGGCTCCTCGGCCAGTTGGGGCCTTTCAGGGCCTGTTGCCCAAGGAGG TGCAGGGGGCTGGGCAGGTGTCCCAGGCCTGTGCCTAATTCCTCTTCATGGAGTCGGGACTGTATGAGCC ATCTGCTGGCTTTGCTGAAGAGCTTCTTCCTTCAAAGGATCCTGAGAGAAAACAGCAACACGGCGGAATA AAGAAAGTAACTGTAGACCTGAACCCAAGCCAACAGTGGCCTTTAATAAATGAAGAGTAGCCATGCGGGC

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Restriction Sites: Rsrll-Notl

ACCN: NM_001037757

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: <u>NM 001037757.1, NP 001032846.1</u>

 RefSeq Size:
 2887 bp

 RefSeq ORF:
 1428 bp

 Locus ID:
 68767

 UniProt ID:
 Q8VDD8

Cytogenetics: 17 E1.1



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 (PubMed:19922875). Its assembly in the WASH core complex seems to inhibit its NPF activity and via WASHC2 is required for its membrane targeting (By similarity). Regulates the trafficking of endosomal alpha5beta1 integrin to the plasma membrane and involved in invasive cell migration (PubMed:22114305). 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 (PubMed:23275443). 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 (PubMed:24886983). Involved in cytokinesis and following polar body extrusion during oocyte meiotic maturation (PubMed:24998208). Involved in Arp2/3 complex-dependent actin assembly driving Salmonella typhimurium invasion independent of ruffling (PubMed:19732055). Involved in the exocytosis of MMP14 leading to matrix remodeling during invasive migration and implicating late endosome-toplasma membrane tubular connections and cooperation with the exocyst complex (By similarity). Involved in negative regulation of autophagy independently from its role in endosomal sorting by inhibiting BECN1 ubiquitination to inactivate PIK3C3/Vps34 activity (PubMed:23974797).[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) differs in the 5' UTR, compared to variant 1. Variants 1 and 2 encode the same protein.