

Product datasheet for **RG209590**

WASH1 (WASHC1) (NM_182905) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	WASH1 (WASHC1) (NM_182905) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	WASH1
Synonyms:	FAM39E; WASH; WASH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG209590 representing NM_182905
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGACTCCTGTGAGGATGCAGCACTCCCTGGCAGGTCAGACCTATGCCGTGCCCTCATCCAGCCAGACC
 TCGGGCGAGAGGAGGCCGTCCAGCAGATGGCGGATGCCCTGCAGTACCTGCAGAAGGTCTCTGGAGACAT
 CTTCCAGCAGGATCTCCAGCGGGTAGAGCAGAGCCGGAGCCAGGTGCAGGCCATTGGAGAGAAGGTCTCC
 TTGGCCCAGGCCAAGATTGAGAAGATCAAGGGCAGCAAGAAGGCCATCAAGGTGTTCTCCAGTGCCAAGT
 ACCCTGCTCCAGAGCGCCTGCAGGAATATGGCTCCATCTTACGGGCGCCCAGGACCCTGGCCTGCAGAG
 ACGCCCCCGCCACAGGATCCAGAGCAAGCACCGCCCCCTGGACGAGCGGGCCCTGCAGGAGAAGCTGAAG
 GACTTTCCTGTGTGCGTGAGCACCAGCCGAGCCCGAGGACGATGCAGAAGAGGGACTTGGGGTCTTC
 CCAGAACATCAGCTCTGTCAGCTCCTTGTGCTCTTCAACACCACCGAGAACCCTGTACAAGAAGTATGT
 CTTCTGGACCCCTGGCTGGTGTGTAACAAAGACCCATGTGATGCTGGGGCAGAGACAGAGGAGAAG
 CTGTTTGTAGCCCTTGTCCATCAGCAAGAGAGAGCAGCTGGAACAGCAGGTCCAGAGAACTACTTCT
 ATGTGCCAGACCTGGGCCAGGTGCCTGAGATTGATGTTCCATCCTACCTGCCTGACCTGCCCGGCATTGC
 CAACGACCTCATGTACAGTGCCGACCTGGGCCCGGCATTGCCCTCTGCCCTGGCACCATTCCAGAA
 CTGCCACCTTCCACACTGAGGTAGCCGAGCCTCTCAAGGTAGACCTACAAGATGGGGTACTAACACCAC
 CCCCACCGCCCCACCACCACCCCAAGCTCCTGAGGTGCTGGCCAGTGCACCCCACTCCCACTCAAC
 CGCGGCCCTGTAGGCCAAGGCGCCAGGCAGGACGACAGCAGCAGCAGCGCATCTCCTCAGTCCAGGGA
 GCTCCAGGGAAGTGGTCGACCCCTCCGGTGGCCGGCCACTCTGCTAGAGTCCATCCGCAAGCTGGGG
 GCATCGGCAAGGCCAAGCTGCGCAGCGTGAAGGAGCGAAAAGCTGGAGAAGAAGAAGCAGAAGGAGCAGGA
 GCAAGTGAGAGCCACGAGCCAAGGTGGGGACTTGATGTCGGATCTCTTCAACAAGCTGGTCATGAGGCGC
 AAGGGCATCTCTGGGAAAGGACCTGGGGCTGGTGAAGGGCCCGGAGGAGCCTTGGCCGCGTGTGAGACT
 CCATCCCTCTCTGCCGCCACCGCAGCAGCCACAGGCAGAGGAGGACGAGGACGACTGGGAATCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG209590 representing NM_182905
 Red=Cloning site Green=Tags(s)

MTPVPMQHS LAGQTYAVPLIQPDLRREEAVQQMADALQYLQKVS GDI FSRISQRVEQSR SQVQAIG EKVS
 LAQAKIEKIKGSKKAIKVFSSAKYPAPERLQEYGSIFTGAQDPGLQRRPRHRIQSKHRPLDERALQEKLK
 DFPVVCVSTKPEPEDDAEEGLGGLPSNISVSSLLLFNTTENLYKKYVFLDPLAGAVTKTHVMLGAETEEK
 LFDAPLSISKREQLQVQVPEYFVYVPLDQGVPEIDVPSYLPDLPGIANDLMYSADLGPPIAPSAPGTIPE
 LPTFHTEVAEPLKVDLQDGVLTTPPPPPPPPPAPEVLASAPPLPPSTAAPVQGQARQDDSSSSASPSVQG
 APREVDPSSGGRATLLESIRQAGGIGKAKLRVSKERKLEKKKQKEQEVQRATSQGGDLMSDLFNKLYMRR
 KGISGKGP GAGEGPGGAFARVSDSIPPLPPPQPQAEEDDDWES

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_182905

ORF Size: 1395 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_182905.3](#), [NP_878908.3](#)

RefSeq Size: 1851 bp

RefSeq ORF: 1398 bp

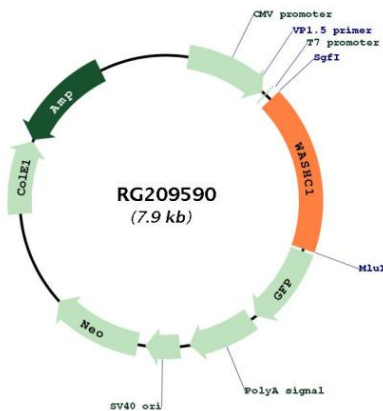
Locus ID: 100287171

UniProt ID: [A8K0Z3](#)

Cytogenetics: 9p24.3

Gene Summary: Acts as a nucleation-promoting factor (NPF) 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:19922874, PubMed:19922875, PubMed:20498093, PubMed:23452853). Its assembly in the WASH core complex seems to inhibit its NPF activity and via WASHC2 is required for its membrane targeting (PubMed:20498093). Involved in endocytic trafficking of EGF (By similarity). Involved in transferrin receptor recycling. 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. 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 (By similarity). 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 (PubMed:24344185). Involved in negative regulation of autophagy independently from its role in endosomal sorting by inhibiting BECN1 ubiquitination to inactivate PIK3C3/Vps34 activity (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG209590