

Product datasheet for **SC102564**

FAM21C (WASHC2C) (NM_015262) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FAM21C (WASHC2C) (NM_015262) Human Untagged Clone
Tag:	Tag Free
Symbol:	FAM21C
Synonyms:	FAM21A; FAM21C; VPEF
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_015262, the custom clone sequence may differ by one or more nucleotides

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ATGATGAACCGGACGACCCCGACCAGGAGCTGGTGCCGGCGTCGGAGCCCGTGTGGGAGCGGCCGTGGT
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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_015262 unedited
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 ATGAACCGGACGACCCCCGACCAGGAGCTGGTGCCGGCGTCGGAGCCCGTGTGGGAGCGG
 CCGTGGTCCGTGGAGGAGATCCGCAGGAGCAGCCAGAGCTGGTCGCTGGCGGCCGACGCG
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 NACANACCAGCACACCACANATGAGTGTGAGGAAANAGATGATGATGGCTGTGACCT
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3' Read Nucleotide Sequence:

>OriGene 3' read for NM_015262 unedited
 NATCTATGNNACCGGGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTTGGGTTCC
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 TGGAGGACATGCAGAGGCACCCTCAGAATTCAGTGAAAACCTGCTCCCATATTGCTAAGA
 CTCATGAAGTATAATCTCTCATCTTCTTTCTTTCCCTGCCCCAAGCCCTAAGTTAGGG
 TTCCCATCCATATAACAAAGACTTCTGGTCAGGTGGCATTGCTATCTCTGAGATTCCCT
 GCCCATGAAAGCCACAAAGAGATTTCTTCTTTTACACACCCTGAAGCATATTATGGCCCC
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 ATGGGTGAACGATGAGCTAGCTGTTCTAGTATTTGCTTTTTGTAATCCAGTTAAGACCA
 TCAGCATATACAACATCATCACTAACTCAACAATGTAGCTGCAGGGTAACATGTGGATAC
 CCTGTGTGCTCTACTGGCCTCAAAGGCATTGAGGGGATCATCAAGATGTTGGACACT
 TGTGTTCAAATCTTGGTTTCAGGTGCGGCCTGTGCAGATCGGCTTTTTGGTTTGGTTGTCT
 TAACCTGGATACAGAGGAGAAGATGTCATCCATATCATCATCAATATAGACTTGGCTTTC
 CACTTCTTTTGGGACTTTCTTTTGGTTTAAAGNTAAGTCAGCAAGATATCATGTTATCATC
 AAATAATTAGATTCCAGGGTTTCTTCTCTCTGTTTCTGGAAGGGTTNATNGCCTT
 CGTACAAATTAATCATCTCAAAATATCTGGGGTGTATTGGACT

Restriction Sites:

NotI-NotI

ACCN:

NM_015262

Insert Size:

4700 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_015262.1](#), [NP_056077.1](#)

RefSeq Size: 4654 bp

RefSeq ORF: 3957 bp

Locus ID: 253725

UniProt ID: [Q9Y4E1](#)

Cytogenetics: 10q11.22

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 (PubMed:19922874, PubMed:20498093, PubMed:22513087, PubMed:23331060). 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 (PubMed:25278552). Required for the association of DNAJC13, ENTR1, ANKRD50 with retromer CSC subunit VPS35 (PubMed:24980502). Required for the endosomal recruitment of CCC and retriever complexes subunits COMMD1 and CCDC93 as well as the retrievere complex subunit VPS35L (PubMed:25355947, PubMed:28892079). [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).