OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TR304670

FAM21C (WASHC2C) Human shRNA Plasmid Kit (Locus ID 253725)

Product data:

Product Type:	shRNA Plasmids
Product Name:	FAM21C (WASHC2C) Human shRNA Plasmid Kit (Locus ID 253725)
Locus ID:	253725
Synonyms:	FAM21A; FAM21C; VPEF
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	WASHC2C - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 253725). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_001169106, NM_001169107, NM_015262, NM_001330074, NM_015262.1, NM_015262.2, NM_001169107.1, NM_001169106.1, BC006456, BC039561, BC053887, BC150611, BM126842, NM_001367394, NM_001367395, NM_001367396, NM_001367399, NM_001367403, NM_001367407, NM_001367409, NM_001367412, NM_001367413, NM_001367415, NR_159966, NM_001367393, NM_001367397, NM_001367398, NM_001367400, NM_001367401, NM_001367402, NM_001367404, NM_001367405, NM_001367406, NM_001367408, NM_001367410, NM_001367411, NM_001367414, NM_001367416, NM_001169107.2, NM_015262.3, NM_001169106.2
UniProt ID:	Q9Y4E1

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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]

shRNA Design:

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

Performance Guaranteed:

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).