

Product datasheet for **RC221241**

FCHSD2 (NM_014824) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FCHSD2 (NM_014824) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FCHSD2
Synonyms:	NWK; NWK1; SH3MD3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC221241 representing NM_014824
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCAGAAGTTGGCTAGTCAATACCTGAAGAGAGATTGGCCTGGAGTAAAAGCTGATGATCGGAATGATT
ACAGGAGCATGTATCCCGTTTGGAAATCTTTCTCGAGGGAACAATGCAGGTAGCCAGTCTCGGATGAA
TATATGTGAAAACATAAAAACTTCATTTCTGAGCCTGCAAGGACAGTGAGAAGCTTAAAAGAACAGCAA
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TTCCAGTTTTTATTAGAAAACCTCCAGCAAGGTGGTCCGGGACTACAATCTTCAGCTGTTTTTGCAAGAAA
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AATCCGTATCTTGAACAAAGAAAACCAAGATGATGATGGCTTCTGGGAAGGGGAATCAATGGGCGTATT
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AGATTCAGATCTCTCTTCCCAAGCCACAGCCTCCCTGCCTCCACTGCCGTTGTACGACCAGCCTCC
CAGCAGCCCTACCCAGCCAGATAAGAGGAGCTCCCTGTACTTTCCCGGTCTCCTTCAGCAAACGAA
AAAAGCCTTATGCTGAGTCACCAGGATTTCTACAGGCATCAAGGCATACTCCTGAGACCTCATATGGCA
AACTGCGACCTGTCCGGGAGCTCCCTCCACCTACACAGAATCACCGAAGGCCAGCAGAGAAGATTGA
AGATGTGGAAATCACACTGGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221241 representing NM_014824
Red=Cloning site Green=Tags(s)

MQKLASQYLKRDWPGVKADDRNDYRSMYPVWKSFLLEGTMQVAQSRMNICENYKNFISEPARTVRSLEKQQ
 LKRCVDQLTKIQTELQETVKDLAKGKKKYFETEQMAHAVREKADIEAKSKLSLFQSRISLQKASVKLKR
 RSECNSKATHARNDYLLTLAAANAHQDRYYQTDLVNIMKALDGNVYDHLKDYLIAFSRTELETQAVQNT
 FQFLLENSKVVVDYDLQLFLQENAVFHKPQPFQPCSDTSRQLESETGTTEEHSLNKEARKWATRVA
 REHKNIHVQQRVLDLECHGAAVSEQSRAELEQKIDEARENIRKAEIIKLEAEARLDLLKQIGVSVDTWL
 KSAMNQVMEELENERWARPPAVTSNGTLHSLNADTEREEGEEFEDNMDVFDSSSSPSGTLRNYPLTCKV
 VYSYKASQPDDELIEEHEVLEVIEDGDMEDWVKARNKVGQVGYVPEKYLQFPTSNSLLSMLQSLAALDSR
 SHTSSNSTEAEVSGSLNGDASVCFVKALYDYGQTDDELSPFEGAIIRILNKENQDDGFWEGEFNGRI
 GVFPVSVLEELASENGDTPWMREIQISPSPKPHASLPLPLDYQPPSSPYSPDKRSSLYFPRSPSANE
 KSLHAESPGFSQASRHTPETSYGKLRPVRAAPPPPTQNHRRAEKIEDVEITLV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6252_c06.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_014824

ORF Size: 2052 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

RefSeq: [NM_014824.1](#), [NP_055639.1](#)

RefSeq Size: 4341 bp

RefSeq ORF: 2223 bp

Locus ID: 9873

UniProt ID: [O94868](#)

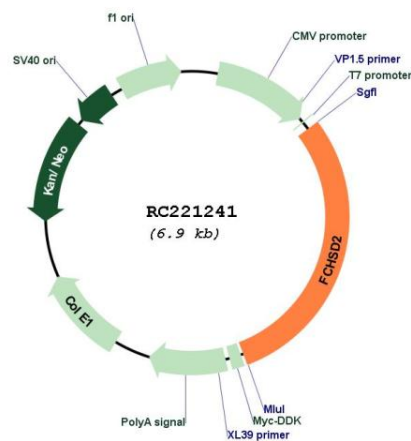
Cytogenetics: 11q13.4

Domains: SH3

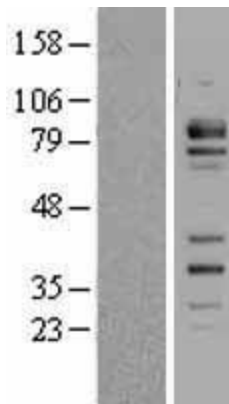
MW: 77.6 kDa

Gene Summary:

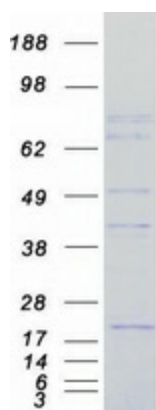
Adapter protein that plays a role in endocytosis via clathrin-coated pits. Contributes to the internalization of cell surface receptors, such as integrin ITGB1 and transferrin receptor (PubMed:29887380). Promotes endocytosis of EGFR in cancer cells, and thereby contributes to the down-regulation of EGFR signaling (PubMed:30249660). Recruited to clathrin-coated pits during a mid-to-late stage of assembly, where it is required for normal progress from U-shaped intermediate stage pits to terminal, omega-shaped pits (PubMed:29887380). Binds to membranes enriched in phosphatidylinositol 3,4-bisphosphate or phosphatidylinositol 3,4,5-trisphosphate (PubMed:29887380). When bound to membranes, promotes actin polymerization via its interaction with WAS and/or WASL which leads to the activation of the Arp2/3 complex. Does not promote actin polymerisation in the absence of membranes (PubMed:29887380).[UniProtKB/Swiss-Prot Function]

Product images:


Circular map for RC221241



Western blot validation of overexpression lysate (Cat# [LY415029]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221241 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FCHSD2 protein (Cat# [TP321241]). The protein was produced from HEK293T cells transfected with FCHSD2 cDNA clone (Cat# RC221241) using MegaTran 2.0 (Cat# [TT210002]).