

Product datasheet for **RG221241**

FCHSD2 (NM_014824) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FCHSD2 (NM_014824) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	FCHSD2
Synonyms:	NWK; NWK1; SH3MD3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG221241 representing NM_014824
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCAGAAGTTGGCTAGTCAATACCTGAAGAGAGATTGGCCTGGAGTAAAAGCTGATGATCGGAATGATT
 ACAGGAGCATGTATCCCGTTTGGAAATCTTTCTCGAGGGAACAATGCAGGTAGCCAGTCTCGGATGAA
 TATATGTGAAAACATAAAAACTTCATTCTGAGCCTGCAAGGACAGTGAGAAGCTTAAAAGAACAGCAA
 CTA AAAAGGTGTGTGGACCAGTTGACAAAGATCCAAACTGAATTACAAGAGACAGTGAAAGATTTAGCTA
 AAGGCAAAAAGAAATACTTTGAGACTGAACAGATGGCTCATGCAGTACGAGAGAAAGCTGACATCGAGGC
 AAAATCTAAACTTAGTCTTTTTCAATCAAGAATCAGTTTACAGAAGGCAAGTGTAAAGTTAAAAGCCCGG
 CGATCTGAGTGTAAATCCAAAGTACCCACGCAAGGAATGATTATCTTCTTACCCTAGCGGCAGCAAATG
 CACATCAGGATCGCTACTATCAAACAGATTTAGTTAACATTATGAAGGCTCTTGATGAAATGTGTATGA
 TCATCTCAAGGATTATTTAATAGCCTTCAGCCGACTGAGCTAGAAACATGCCAAGCTGTGCAGAACACA
 TTCCAGTTTTTATTAGAAAACCTCCAGCAAGGTGGTCCGGGACTACAATCTTCAGCTGTTTTTGCAAGAAA
 ACGCTGTATTTCAAAAACCCAGCCCTTCCAGTCCAGCCTTGTGACAGTGATACTAGCCGACAGTTAGA
 ATCAGAAACTGGGACCACAGAGGACACAGTCTAAATAAGGAAGCTCGAAAATGGGCCACACGTGTGGCA
 CGTGAGCATAAAAACATTGTTCCACCAACAACGGGTTCTAAATGATCTGGAGTGTGATGGAGCTGTGTAT
 CAGAACAAGCCGAGCAGAGCTAGAACAGAAAAATAGATGAAGCTAGAGAAAAATTCGTAAGCAGAGAT
 AATTAATTGAAAGCTGAAGCCCGTTGGACCTGCTAAAGCAGATTGGTGTCTGTGGACACATGGCTA
 AAGAGTGCCATGAACCAAGTAATGGAAGAACTGGAAAAAGAGCGATGGGCCCGCCCTCCTGCAGTGACCA
 GTAATGGCACTTTACACTCGCTTAATGCAGATACCGAAAGAGAAGAAGGCGAAGATTTGAAGATAACAT
 GGATGTTTTCGATGACAGCAGTTCCAGCCCTTCTGGCACCTTAAGAAATTATCCACTCACCTGCAAAGTT
 GTTTTATCCTACAAGGCTTCTCAACCAGATGAGTTGACCATTGAGGAACATGAGGTGTTAGAAGTGATTG
 AAGATGGAGATATGGAAGACTGGGTAAGGCTCGAAAATAAGTTGGCCAAGTGGTTATGTGCCAGAAAA
 GTACCTACAGTTTCCACCTCGAACAGCCTCCTGAGCATGCTGCAGTCCCTGGCCGCTTTGGACAGTCGG
 TCACACACGTCCAGCAATTCACGGAAGCAGAACTCGTTTCAGGCAGCCTCAACGGAGATGCCAGTGTAT
 GTTTTGTGAAAGCACTTTATGATTATGAGGGCCAGACAGATGATGAGTTATCTTTTCTGAGGGAGCAAT
 AATCCGTATCTTGAACAAAGAAAACCAAGATGATGATGGCTTCTGGGAAGGGGAATCAATGGGCGTATT
 GGAGTTTTCCCATCGGTGCTAGTGAAGAACTTTCAGCCTCAGAAAATGGTGACTCCATGGATGAGAG
 AGATTCAGATCTCTCTTCCCAAGCCACAGCCTCCCTGCCTCCACTGCCGTTGTACGACCAGCCTCC
 CAGCAGCCCTACCCAGCCAGATAAGAGGAGCTCCCTGTACTTTCCCGGTCTCCTTCAGCAAACGAA
 AAAAGCCTTATGCTGAGTCACCAGGATTTCTACAGGCATCAAGGCATACTCCTGAGACCTCATATGGCA
 AACTGCGACCTGTCCGGGAGCTCCCTCCACCTACACAGAATCACCGAAGGCCAGCAGAGAAGATTGA
 AGATGTGGAAATCACACTGGTG

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG221241 representing NM_014824
 Red=Cloning site Green=Tags(s)

MQKLASQYLKRDWPGVKADDRNDYRSMYPVWKSFLLEGTMQVAQSRMNICENYKNFISEPARTVRSLEKQQ
 LKRCVDQLTKIQTELQETVKDLAKGKKKYFETEQAHAHVREKADIEAKSKLSLFQSRI SLQKASVKLKAR
 RSECNSKATHARNDYLLTLAAANAHQDRYYQTDLVNIMKALDGNVYDHLKDYLIAFSRTELETQAVQNT
 FQFLLENSKVVVDYNLQLFLQENAVFHKPPFQFQPCDSDTSRQLESETGTTEEHSLNKEARKWATRVA
 REHKNIHVHQRVLDLECHGAAVSEQSRALEQKIDEARENIRKAEI IKLKAEARLDLLKQIGVSVDTWL
 KSAMNQVMEELENERWARPPAVTSNGTLHSLNADTEREEGEEFEDNMDVFDSSSSPSGTLRNYPLTCKV
 VYSYKASQPELTIIEHEVLEVI EDGDMEDWVKARNKVGQVGYVPEKYLQFPTSNSLLSMLQSLAALDSR
 SHTSSNSTEAE LVSGSLNGDASVCFVKALYDYGQTDDEL SFPEGAIIRILNKENQDDGFWEFENGRI
 GVFPVSVLVEELASENGDTPWMREIQISPSPKPHASLPLPLDYQPPSSPYSPDKRSSLYFPRSPSANE
 KSLHAESPFGSQRHTPETSYGKLRPVRAAPPPPTQNHRRAEAKIEDVEITLV

TRTRPLE - GFP Tag - V

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

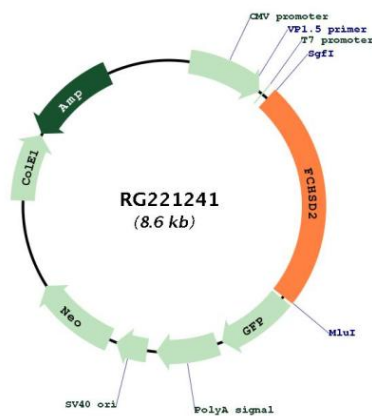
UniProt ID: [O94868](#)

Cytogenetics: 11q13.4

Domains: SH3

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 RG221241