

## Product datasheet for **SC108752**

### **FCHSD2 (NM\_014824) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	FCHSD2 (NM_014824) Human Untagged Clone
Tag:	Tag Free
Symbol:	FCHSD2
Synonyms:	NWK; NWK1; SH3MD3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC108752 sequence for NM\_014824 edited (data generated by NextGen Sequencing)

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ATGCAGCCGCCGCGAGGAAGGTGAAAGTTACACAAGAACTGAAAAACATTCAAGTTGAG
CAGATGACAAAACCTTCAAGCCAAACATCAAGCAGAATGTGATTTGCTTGAAGATATGAGG
ACATTCAGTCAGAAGAAGGCTGCTATTGAAAGAGAGTATGCACAGGGTATGCAGAAGTTG
GCTAGTCAATACCTGAAGAGAGATTGGCCTGGAGTAAAAGCTGATGATCGGAATGATTAC
AGGAGCATGTATCCCGTTTGGAAATCTTTCTCGAGGGAACAATGCAGGTAGCCCAGTCT
CGGATGAATATATGTGAAAACATAAAAACTTCAATTTCTGAGCCTGCAAGGACAGTGAGA
AGCTTAAAAGAACAGCAACTAAAAGGTGTGTGGACCAGTTGACAAAGATCCAAACTGAA
TTACAAGAGACAGTGAAAGATTTAGCTAAAGGCCAAAAGAAAATACTTTGAGACTGAACAG
ATGGCTCATGCAGTACGAGAGAAAGCTGACATCGAGGCCAAAATCTAAACTTAGTCTTTTT
CAATCAAGAATCAGTTTACAGAAGGCAAGTGTAAAGTTAAAAGCCCGCGCATCTGAGTGT
AATTCAAAGCTACCCACGCAAGGAATGATTATCTTCTTACCCTAGCGGCAGCAAATGCA
CATCAGGATCGCTACTATCAAACAGATTTAGTTAACATTATGAAGGCTCTTGATGGAAT
GTGTATGATCATCTCAAGGATTATTTAATAGCCTTCAGCCGACTGAGCTAGAAACATGC
CAAGCTGTGCAGAACACATTCAGTTTTTATTAGAAAACCCAGCAAGGTGGTCCGGGAC
TACAATCTTCAGCTGTTTTTGAAGAAAACGCTGTATTTACAAAACCCCGCCCTCCAG
TTCCAGCCTTGTGACAGTGATACTAGCCGACAGTTAGAATCAGAAAACGGGACCACAGAG
GAGCACAGTCTAAATAAGGAAGCTCGAAAATGGGCCACACGTGTGGCACGTGAGCATAAA
AACATTGTTCCACCAACACGGGTTCTAAATGATCTGGAGTGTGATGGAGCTGCTGTATCA
GAACAAAGCCGAGCAGAGCTAGAACAGAAAATAGATGAAGCTAGAGAAAAATTCGTAAG
GCAGAGATAATTAATGAAAGCTGAAGCCCGTTGGACCTGCTAAAGCAGATTGGTGTG
TCTGTGGACACATGGCTAAAGAGTGCCATGAACCAAGTAATGGAAGAAGTGGAAAATGAG
CGATGGGCCCGCCCTCCTGCAGTGACCAGTAATGGCACTTTACACTCGCTTAATGCAGAT
ACCGAAAAGAGAAGAGGCGAAGAGTTTGAAGATAACATGGATGTTTTCGATGACAGCAGT
TCCAGCCCTTCTGGCACCTTAAGAAAATTATCCACTCACCTGCAAAGTTGTTTATTCCTAC
AAGGCTTCTCAACCAGATGAGTTGACCATTGAGGAACATGAGGTGTTAGAAGTGATTGAA
GATGGAGATATGGAAGACTGGGTAAAGGCTCGAAATAAAGTTGGCCAAGTGGGTTATGTG
CCAGAAAAGTACCTACAGTTTCCCACCTCGAACAGCCTCCTGAGCATGCTGCAGTCCCTG
GCCGCTTTGGACAGTCGGTCACACACGTCCAGCAATTCACGGAAGCAGAACTCGTTTCA
GGCAGCCTCAACGGAGATGCCAGTGTATGTTTTGTGAAAGCACTTTATGATTATGAGGGC
CAGACAGATGATGAGTTATCTTTTCTGAGGGAGCAATAATCCGTATCTTGAACAAAGAA
AACCAAGATGATGATGGCTTCTGGGAAGGGGAATTCAATGGGCGTATTGGAGTTTTCCCA
TCGGTGTAGTGGAAAGAACTTTACGCTCAGAAAATGGTGACACTCCATGGATGAGAGAG
ATTCAGATCTCTCCTTCCCCAAGCCACACGCCTCCCTGCCTCCACTGCCGTTGTACGAC
CAGCCTCCCAGCAGCCCCTACCCAGCCCCAGATAAGAGGAGCTCCCTGTACTTTCCCGG
TCTCCTCAGCAAACGAAAAAGCCTTCATGCTGAGTCACCAGGATTTCTCACAGGCATCA
AGGCATACTCCTGAGACCTCATATGGCAAACGCGACCTGTCCGGGCAGCTCCCCCTCCA
CCTACACAGAATCACCGAAGGCCAGCAGAGAAGATTGAAGATGTGGAAATCACACTGGTG
TGA

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Clone variation with respect to NM\_014824.2

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_014824 unedited  
 GGCCGCGAATTCGGCACGAGGCTTCCCGGTGCTCCTCCCTCGTCTCCTCACACTCGCTCT  
 CTGGCTGGGGTCCGCCTGCCGCCCGCTGGCCTGCTCCCTCCGGGGCAAGTCTTGCTTCTT  
 AAGCGCTCCTTTACACACGCGCGCGCTCGCTGGGCCGTCCCCTCCTCCTCCGGCCCTCT  
 CCTCCTCTGGTCTTGTAACTGCTGCCGTGCGGGAGGATTGATGTCCCTTCAGCATCAT  
 GCAGCCGCCGCCGAGGAAGGTGAAAGTTACACAAGAAGTAAAAACATTCAAGTTGAGCA  
 GATGACAAAACCTCAAGCCAAACATCAAGCAGAATGTGATTTGCTTGAAGATATGAGGAC  
 ATTCAGTCAGAAGAAGGCTGCTATTGAAAGAGAGTATGCACAGGTATGCAGAAGTTGGC  
 TAGTCAATACCTGAAGAGAGATTGGCCTGGAGTAAAAGCTGATGATCGGAATGATTACAG  
 GAGCATGTATCCCGTTTGAAATCTTTTCTCGAGGGAACAATGCAGGTAGCCAGTCTCG  
 GATGAATATATGTGAAAATAAAAACTTCAATTTCTGAGCCTGGCAGGACAGTGAGAAG  
 CTTAAAAGAACAGCACTAAAAGGTGTGTGGACCAGTTGACAAAAGATCCCAACTGGGATT  
 ACAGAGACAGTGAAGATTTAGCTAAAGGCNNAAGAAATACTNTGAGACTNGACAGATG  
 GCTCATGCAGTACGAGAGAAAGCTGACATCGA

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_014824 unedited  
 TTTAGCTTGGACCGCGCCGAATCTAGGATCGAGTTTTTTTTTTTTTTTTTTTAAATTC  
 ATTTTTTTTATTATTCAACATTTTATACATAATAAATACAACTTTTTACAGCCACTGTA  
 AAGAAAGCACATCTGCACAGAGGCTCCCTCCGAGCCCTGACCTGTGCACTGTGGTCTGG  
 ATTCCATATCCTGGATGGAGGGTTATTTTTTAAAAAGGAGGCATGTTTTACAACCTTTG  
 TTTTTTAAAAATAAAATTAGCAGCTCTTCCAAAAAATTTTTAAAAATAACAACAAAGATT  
 CAAATAACCTTTGAGGTTGTGGAAAACCCAAATCAAGGACAATTTGGCTAGCTAAAGA  
 CAGAATACAAGACTGGGTGGCAAGAACTGCTCTATTTAATAAGCATTTGAAGATTTTTAA  
 TATGTTAGCAAACCTTTAAATCTTAAAAAAACCACCTTTTTAATTTCTTTTTTAACTTA  
 AGAATAACTTTGATAAACACAAAAGACCTAAAATAGATCAACAGGTTAAGCAAGTGAAT  
 ACACAACACCGAATAACAACCCCAACCCATGGCAAATATTCCTTACCGCGGTTTTTCGTAC  
 CTGACGTGTTCCACGATTTACAATTTCTTCACTCCCCACTTTACTCTTCGCCATACTT  
 CCATGGCGCAATCCCCGCACCCCCCACTTTCTTAATCCCCTTCCACTTCCGCCCC  
 CGCTTGTCTCCCCCTCTCCCCATTCCCACCCCCCCCCCCCCCGGATTTCCACCACCA  
 CAATATCTGCACGGTTACTTTTTCCCTCACCTCTCTCACATAAATTAGCCTACCA  
 CCCCATCCACCCCTATTAACCCCTTTTACGCCACCCCTTATACACTTAACCATCCCTTTC  
 TCCTTTTTTTCATATACCCCTACGCTCTTTACACCTCCATTTATCCCCACTATCCACTT  
 CGTATTTTTTACTCCG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_014824

**Insert Size:**

4310 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](mailto: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](#)

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<u><a href="#">NM_014824.1</a></u> , <u><a href="#">NP_055639.1</a></u>
<b>RefSeq Size:</b>	4507 bp
<b>RefSeq ORF:</b>	2055 bp
<b>Locus ID:</b>	9873
<b>UniProt ID:</b>	<u><a href="#">O94868</a></u>
<b>Cytogenetics:</b>	11q13.4
<b>Domains:</b>	SH3
<b>Gene Summary:</b>	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]