

## Product datasheet for **SC318255**

### **RFWD3 (NM\_018124) Human Untagged Clone**

#### **Product data:**

|                           |                                        |
|---------------------------|----------------------------------------|
| Product Type:             | Expression Plasmids                    |
| Product Name:             | RFWD3 (NM_018124) Human Untagged Clone |
| Tag:                      | Tag Free                               |
| Symbol:                   | RFWD3                                  |
| Synonyms:                 | FANCW; RNF201                          |
| Mammalian Cell Selection: | Neomycin                               |
| Vector:                   | pCMV6-Entry (PS100001)                 |
| E. coli Selection:        | Kanamycin (25 ug/mL)                   |



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**Fully Sequenced ORF:** >SC318255 representing NM\_018124.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGCTCATGAAGCAATGGAATATGATGTTGAGGTGCAGTTAAATCATGCCGAACAACAGCCAGCTCCT
GCTGGCATGGCCAGCAGCCAAGGGGGACCAGCCCTCCTCCAGCCTGTTCTGCTGATGTGGTCAGCAGC
CAGGGGGTACCATCCATCCTCCAGCCAGCTCCTGCTGAGGTGATCAGCAGCCAAGCGACACCACCCCTG
CTCCAGCCTGCTCCGCAACTGTCTGTTGACCTGACAGAAGTGGAGGTCTTGGGAGAAGACACTGTGGAG
AACATCAATCCAAGAACTTCAGAACAACATAGGCAGGGATCTGATGGTAATCACACCATCCAGCATCT
TCGTTGCATTCAATGACCAACTTCATCAGCGGACTGCAGAGACTTCATGGCATGCTGGAATTCCTGAGA
CCTTCATCTTCAAACCACAGTGTAGGGCCAATGAGAACAAGAAGGAGGTATCTGCTTCACGGAGGGCA
AGAGCCGAGGGTCTCAGAGGACAGACAGTGCCAGGTTGAGAGCACCATTGGATGCTTACTTTCAGGTG
AGCAGGACCCAGCCTGACTTGCCAGCTACCACTTATGATTCAGAGACTAGGAATCCTGTATCTGAAGAG
TTGAGGTGTCTAGTAGTTCTGATTCTGACAGTGACAGCTCTGCAGAGTATGGAGGGGTGTTGACCAG
GCAGAGGAATCTGGAGCTGTCATTTAGAGAGCAACTAGCAGGTGTCTCAGCAGAGCAAGAAGTTACA
TGTATCGATGGAGGCAAGACCCTCCCCAAACAGCCATCTCCCCAGAAGTCTGAGCCTCTGTACCTTCT
GCTTCTATGGATGAGGAAGAAGGGGACACTTGTACAATATGTCTGGAACAGTGGACCAATGCTGGGGAC
CACC GGCTCTCAGCATTACGCTGTGGGCATCTCTTTGGGTATAGGTGCATTTCCACGTGGCTTAAAGGA
CAAGTACGAAAATGTCCCAAGTGAACAAGAAAGCCAGGCACAGTGACATTGTGCTCCTTTATGCCCGA
ACCCTGAGAGCTTTGGACACTAGTGAACAGGAGCGCATGAAAAGTTCCCTACTGAAGAACAGATGCTA
AGGAAACAGGCCGAGTTAGAATCAGCACAGTGCCGACTCCAATGCAGGTCTCTACTGATAAGTGCAT
AGGCTTCAAAGGCGTGTTCAGGACTTGCAAAAACCTTACGTCACATCAAAGTCAGAATTTACAGCAACCC
AGGGGCTCCCAAGCATGGGTCTTGAGCTGCTCACCCTCCAGCCAGGGCCAGCACAAAGTACAC
TTCCAAAAGACCTTCACAGTATCTCAGGCAGGAAACTGCCGGATCATGGCATACTGTGATGCTCTGAGC
TGCTGTGATATCACAGCCTTCTCCTCAGGCCTCTTTTCTTCCAGGCTTTGGTGTAAAGATGTTGAGT
ACTGCCAACATGAAGAGCAGTCAGTACATTCCGATGCATGGCAAACAGATCCGTGGACTGGCGTTTAGC
AGTTACCTCAGAGGCTTGCTACTCTGCTTCCCTAGACAACACTATTAAGTACCAGCCTGGAGACA
AATACCGTGGTCCAGACTTATAATGCTGGACGTCCTGTCTGGAGCTGTTGCTGGTGTCTTGATGAGGCT
AACTACATCTATGCTGGACTGGCAATGGTTCAATTCTGGTATATGACGTGCGAAACACGAGCAGTCAT
GTGAGGAGTTAGTAGCTCAGAAAGCCAGATGCCCACTGGTCTCCCTGTCATACATGCCAGAGCTGCC
TCAGCTGCATTTCCATATGGTGGGGTGCTGGCTGGAACCTTGGAGGATGCTTCATTCTGGGAACAGAAA
ATGGACTTTTCTCATTGGCCTCATGTGCTGCCCTTGGAGCCAGGGGGCTGCATAGACTTTTCAAGACAG
AACAGCTCCCGGCACTGTCTTGACCTACAGGCCTGATAAAAATCACACCACCATACGAAGTGTGCTG
ATGGAAATGTCTACCGACTGGATGACACTGGAATCCAATCTGCTCCTGCCAGCCTGTACATACATTT
TTTGGAGGACCTACTTGCAAACTATTGACCAAAAATGCCATTTTCAAAGCCCAGAGAATGATGGCAAC
ATCCTGGTGTGTACTGGGGATGAAGCAGCAAATCTGCCCTGCTGTGGGATGCTGCCAGTGGCTCGTTG
CTCCAGGACCTACAGACCGATCAGCCTGTGTTGGACATCTGCCATTTGAGGTGAACCGTAACAGCTAC
TTGGCTACCTTAACAGAGAAGATGGTCCACATCTATAAGTGGGAGTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_018124

**Insert Size:** 2325 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).

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|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>OTI Annotation:</b>        | This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <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>                | <a href="#">NM_018124.3</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>RefSeq Size:</b>           | 4952 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>RefSeq ORF:</b>            | 2325 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Locus ID:</b>              | 55159                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>UniProt ID:</b>            | <a href="#">Q6PCD5</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Cytogenetics:</b>          | 16q23.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Domains:</b>               | WD40, RING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Families:</b>      | Druggable Genome                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>MW:</b>                    | 85.1 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Gene Summary:</b>          | <p>E3 ubiquitin-protein ligase required for the repair of DNA interstrand cross-links (ICL) in response to DNA damage (PubMed:21504906, PubMed:21558276, PubMed:26474068, PubMed:28575657, PubMed:28575658). Plays a key role in RPA-mediated DNA damage signaling and repair (PubMed:21504906, PubMed:21558276, PubMed:26474068, PubMed:28575657, PubMed:28575658, PubMed:28691929). Acts by mediating ubiquitination of the RPA complex (RPA1, RPA2 and RPA3 subunits) and RAD51 at stalled replication forks, leading to remove them from DNA damage sites and promote homologous recombination (PubMed:26474068, PubMed:28575657, PubMed:28575658). Also mediates the ubiquitination of p53/TP53 in the late response to DNA damage, and acts as a positive regulator of p53/TP53 stability, thereby regulating the G1/S DNA damage checkpoint (PubMed:20173098). May act by catalyzing the formation of short polyubiquitin chains on p53/TP53 that are not targeted to the proteasome (PubMed:20173098). In response to ionizing radiation, interacts with MDM2 and enhances p53/TP53 ubiquitination, possibly by restricting MDM2 from extending polyubiquitin chains on ubiquitinated p53/TP53 (PubMed:20173098).[UniProtKB/Swiss-Prot Function]</p> |