

Product datasheet for **RC209196**

RFWD3 (NM_018124) Human Tagged ORF Clone

Product data:

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



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**ORF Nucleotide
Sequence:**

>RC209196 representing NM_018124
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

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 CAGCCTGCTCCGCAACTGTCTGTTGACCTGACAGAAGTGAGGTCTTGGGAGAAGACACTGTGGAGAACA
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Protein Sequence: >RC209196 representing NM_018124
 Red=Cloning site Green=Tags(s)

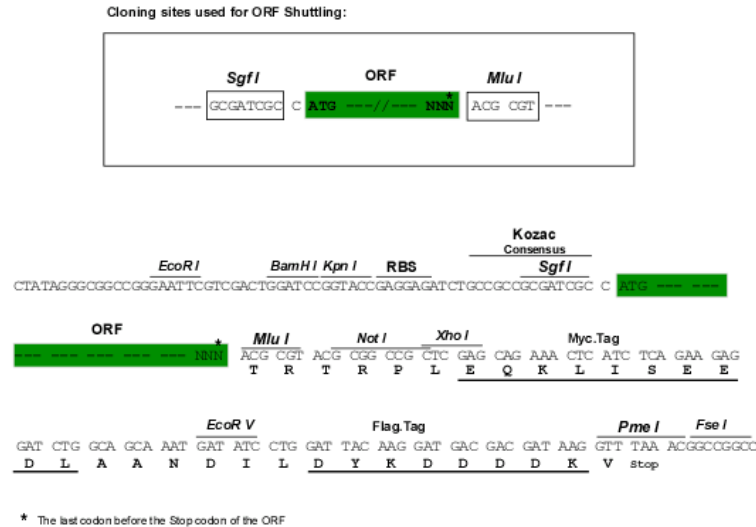
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 LPLEPGGCIDFQTENSSRHCLVTYRPDKNHTTIRSVLMEMSYRLDDTGNPICSCQPVHTFFGGPTCKLLT
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 YKWE

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Chromatograms: https://cdn.origene.com/chromatograms/mg2877_a04.zip

Restriction Sites: SgfI-MluI

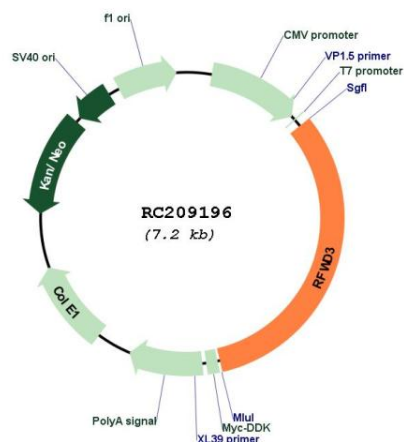
Cloning Scheme:



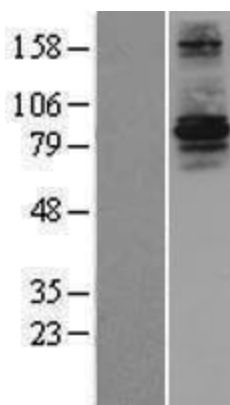
ACCN:	NM_018124
ORF Size:	2322 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_018124.3, NP_060594.3</u>
RefSeq Size:	4952 bp
RefSeq ORF:	2325 bp
Locus ID:	55159
UniProt ID:	<u>Q6PCD5</u>
Cytogenetics:	16q23.1
Domains:	WD40, RING
Protein Families:	Druggable Genome
MW:	84.9 kDa
Gene Summary:	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]

Product images:



Circular map for RC209196



Western blot validation of overexpression lysate (Cat# [LY413309]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209196 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).