

Product datasheet for **RC217602**

RWDD3 (NM_015485) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RWDD3 (NM_015485) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RWDD3
Synonyms: RSUME
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC217602 representing NM_015485
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGAGCCTGTGCAGGAGGAGCTCTCGTCTGGCCGCGATTTTCTGCAGGCCCCACGAGTGGGAGG
TGCTGAGCCGCTCAGAGACAGATGGGACCGTGTTCAGAATTCACACAAAAGCTGAAGATTTATGGATGC
GGATATACCTCTGGAATTGGTGTCCATTTGCCAGTCAATTATCCTTCATGTCTACCTGGTATCTCGATT
AACTCTGAACAGTTGACCAGGGCCAGTGTGTGACTGTGAAAGAGAATTTACTTGAGCAAGCAGAGAGCC
TTTTGTGCGGAGCCTATGGTTCATGAGCTGGTCTCTGGATTCAGCAGAATCTCAGGCATATCCTCAGCCA
ACCAGAAACTGGCAGTGGCAGTAAAAGTGTACTTTTTCAACAAGCACGACCATGGATGATGGATTGTGG
ATAACTCTTTGCATTTAGATCACATGAGAGCAAAGACTAAATATGTCAAATTTGGAGAAGTGGGCTT
CAGATTTAAGGCTGACAGGAAGACTGATGTTTCATGGTAAAATAACTGATTTTACTACAGGGAGACAG
AAACAACCTCAAGGAGTACTTGATTCTTCAGAAAACCTCCAAAGTAGATGTGGACTCAAGTGGAAAGAAA
TGCAAAGAGAAAATGATTAGTGTACTGTTTGAACAAAAGTACAGACAGAACACAAAAGGTTTCTGGCAT
TTGAAGTCAAAGAGTATTCAGCGTTGGATGAATTACAAAAGGAATTTGAAACTGCAGGACTTAAGAAGCT
TTTCTCGAATTTGTACTTGCTCTGGTAAAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC217602 representing NM_015485
Red=Cloning site Green=Tags(s)

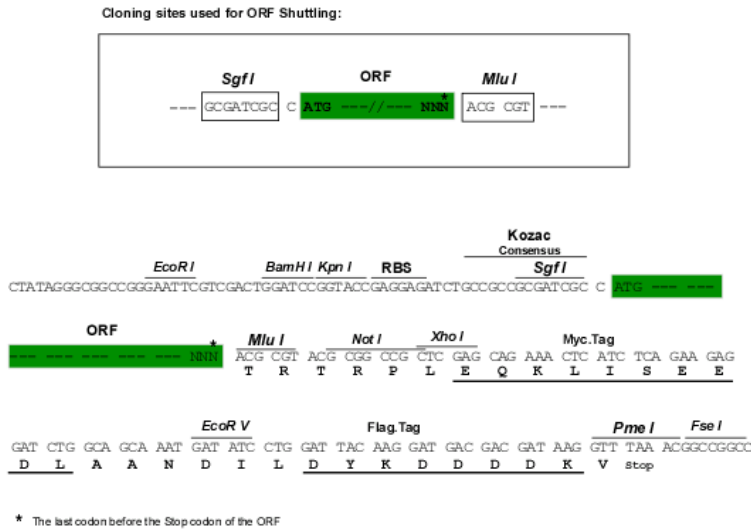
MAEPVQEELSVLAAIFCRPHEWEVLSRSETDGTVFRIHTKAEGFMDADIPELVFHLVPVNYPSCLPGISI
 NSEQLTRAQCVTYKENLLEQAESLLSEPMVHELVLWQQNLRHILSQPETGSGSEKCTFSTSTTMDGLW
 ITLLHLDHMRKTKYVKIVEKWSDLRLTGRLMFMGKIILLQGDNRNLKEYLILQKTSKVDVDSGKK
 CKEKMISVLFETKVQTEHKRFLAFEVKEYSALDELQKFEFETAGLKKLSEFVLALVK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8048_b04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_015485

ORF Size: 801 bp

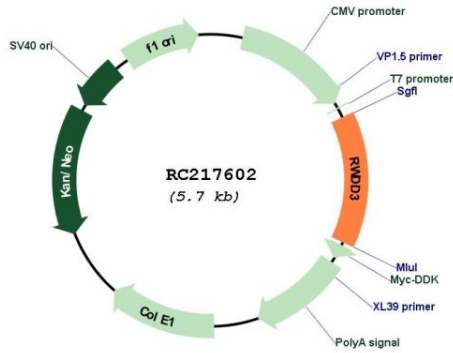
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

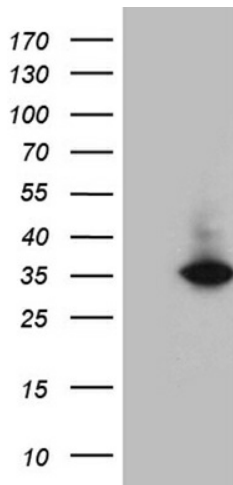
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">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:	<u>NM_015485.4, NP_056300.2</u>
RefSeq Size:	1250 bp
RefSeq ORF:	804 bp
Locus ID:	25950
Cytogenetics:	1p21.3
Domains:	RWD
MW:	30.3 kDa
Gene Summary:	Enhancer of SUMO conjugation. Via its interaction with UBE2I/UBC9, increases SUMO conjugation to proteins by promoting the binding of E1 and E2 enzymes, thioester linkage between SUMO and UBE2I/UBC9 and transfer of SUMO to specific target proteins which include HIF1A, PIAS, NFKBIA, NR3C1 and TOP1. Isoform 1 and isoform 2 positively regulate the NF-kappa-B signaling pathway by enhancing the sumoylation of NF-kappa-B inhibitor alpha (NFKBIA), promoting its stabilization which consequently leads to an increased inhibition of NF-kappa-B transcriptional activity. Isoform 1 and isoform 2 negatively regulate the hypoxia-inducible factor-1 alpha (HIF1A) signaling pathway by increasing the sumoylation of HIF1A, promoting its stabilization, transcriptional activity and the expression of its target gene VEGFA during hypoxia. Isoform 2 promotes the sumoylation and transcriptional activity of the glucocorticoid receptor NR3C1 and enhances the interaction of SUMO1 and NR3C1 with UBE2I/UBC9. Has no effect on ubiquitination.[UniProtKB/Swiss-Prot Function]

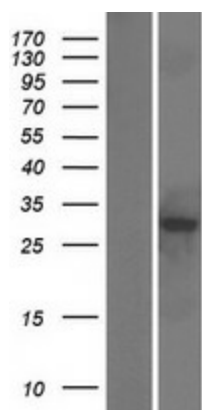
Product images:



Circular map for RC217602



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY RWDD3 (Cat# RC217602, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-RWDD3 (Cat# [TA811763])(1:2000). Positive lysates [LY414519] (100ug) and [LC414519] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY414519]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217602 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).