

Product datasheet for **RC225219**

RWDD3 (NM_001128142) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RWDD3 (NM_001128142) 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: >RC225219 representing NM_001128142
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCGGAGCCTGTGCAGGAGGAGCTCTCGTCTGGCCGCGATTTCTGCAGGCCCCACGAGTGGGAGG
 TGCTGAGCCGCTCAGAGACAGATGGGACCGTGTTCAGAATTCACACAAAAGCTGAAGGATTTATGGATGC
 GGATATACCTCTGGAATTGGTGTCCATTTGCCAGTCAATTATCCTTCATGTCTACCTGGTATCTCGATT
 AACTCTGAACAGTTGACCAGGGCCAGTGTGTGACTGTGAAAGAGAATTTACTTGAGCAAGCAGAGAGCC
 TTTTGTGGAGCCTATGGTTCATGAGCTGGTCTCTGGATTCAGCAGAATCTCAGGCATATCCTCAGCCA
 ACCAGAACTGGCAGTGGCAGTAAAAGTGTACTTTTTCAACAAGCACGACCATGGATGATGGATTGTGG
 ATAACCTTTTGCATTTAGATCACATGAGAGCAAAGACTAAATATGTCAAATTTGGAGAAGTGGGCTT
 CAGATTTAAGGCTGACAGGAAGACTGATGTTTCATGGGTAATAATACTGATTTTACTACAGGGAGACAG
 AAACAACCTCAAGGTGCCAAAAAGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC225219 representing NM_001128142
 Red=Cloning site Green=Tags(s)

MAEPVQEELSVLAAIFCRPHEWEVLSRSETDGTVFRIHTKAEGFMDADIPLLVFHLVPVNYPSCLPGISI
 NSEQLTRAQCVTKENLLEQAESLLSEPMVHELVLWIIQQLRHILSQPETGSGSEKCTFSTSTTMDGLW
 ITLLHLDHMRKTKYVKIVEKWASDLRLTGRLMFMGKIILILLQGDRNNLKVPKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

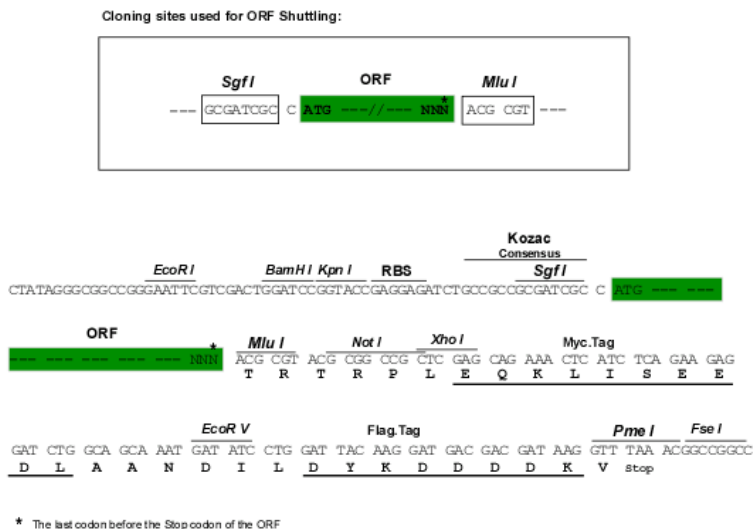


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Chromatograms: https://cdn.origene.com/chromatograms/ja1257_e11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001128142

ORF Size: 585 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.

RefSeq: [NM_001128142.1](#), [NP_001121614.1](#)

RefSeq ORF: 588 bp

Locus ID: 25950

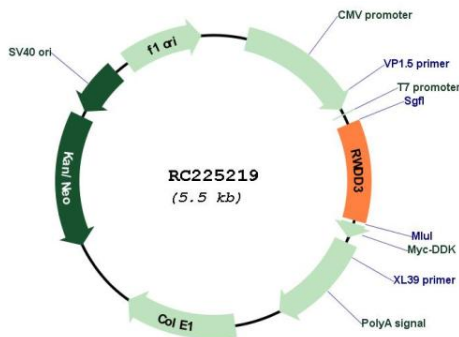
UniProt ID: [Q9Y3V2](#)

Cytogenetics: 1p21.3

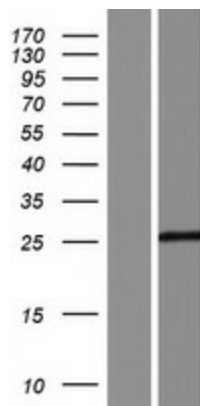
MW: 21.9 kDa

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]

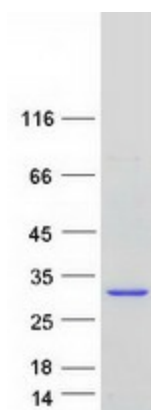
Product images:



Circular map for RC225219



Western blot validation of overexpression lysate (Cat# [LY426894]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC225219 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RWDD3 protein (Cat# [TP325219]). The protein was produced from HEK293T cells transfected with RWDD3 cDNA clone (Cat# RC225219) using MegaTran 2.0 (Cat# [TT210002]).