

Product datasheet for **RC236518**

RWDD3 (NM_001199682) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: RWDD3 (NM_001199682) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: RWDD3
Synonyms: RSUME
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RC236518 representing NM_001199682
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGCGGAGCCTGTGCAGGAGGAGCTCTCGGTCTGGCCGGATTTTCTGCAGGCCCCACGAGTGGGAGG
TGCTGAGCCGCTCAGAGACAGATGGGACCGTGTTCAGAATTCACACAAAAGCTGAAGGATTTATGGATGC
GGATATACCTCTGGAATTGGTGTCCATTTGCCAGTCAATTATCCTTCATGTCTACTGATCTCGATT
AACTCTGAACAGTTGACCAGGGCCAGTGTGTGACTGTGAAAGAGAATTTACTTGAGCAAGCAGAGAGCC
TTTTGTGGAGCCTATGGTTCATGAGCTGGTCTCTGGATTTCAGCAGAATCTCAGGCATATCCTCAGCCA
ACCAGAACTGGCAGTGGCAGTGAAGGTGACTTTTTCAACAAGCACGACCATGGATGATGGATTGTGG
ATAACTCTTTTGCATTTAGATCACATGAGAGCAAAGACTAAATATGTCAAATTTGTGGAGAAGTGGGCTT
CAGATTTAAGGCTGACAGGAAGACTGATGTTTCATGGGAGTACTTGATTCTTCAGAAAACCTCAAAGTAG
ATGTGGACTCAAGTGAAAGAAATGCAAAGAGAAAATGAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC236518 representing NM_001199682
Red=Cloning site Green=Tags(s)

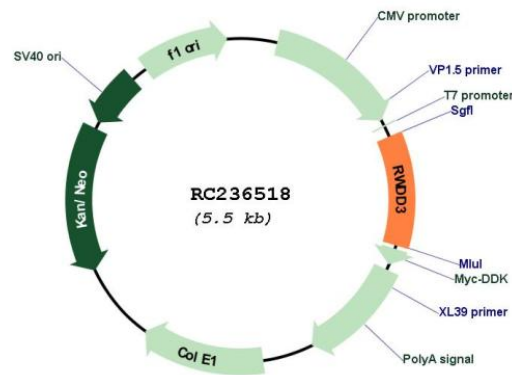
MAEPVQEELSVLAAIFCRPHEWEVLSRSETDGTVFRIHTKAEGFMDADIPELVFHLPVNYPSCLPGISI
NSEQLTRAQCVTKENLLEQAESLLSEPMVHELVLWIQQNLRHILSQPETGSGSEKCTFSTSTTMDGLW
ITLLHLDHMRAKTKYVKIVEKWASDLRLTGRLMFMGVLDSSENLQSRCGLKWKEMQREND

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI



Cloning Scheme:

Plasmid Map:


ACCN: NM_001199682

ORF Size: 600 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_001199682.1, NP_001186611.1

RefSeq Size: 1203 bp

RefSeq ORF: 603 bp

Locus ID: 25950

Cytogenetics: 1p21.3

MW: 23.3 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]