

## Product datasheet for **RG217602**

### RWDD3 (NM\_015485) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RWDD3 (NM_015485) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	RWDD3
Synonyms:	RSUME
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG217602 representing NM_015485 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCGGAGCCTGTGCAGGAGGAGCTCTCGTCTGGCCGCGATTTCTGCAGGCCCCACGAGTGGGAGG  
TGCTGAGCCGCTCAGAGACAGATGGGACCGTGTTCAGAATTCACACAAAAGCTGAAGATTTATGGATGC  
GGATATACCTCTGGAATTGGTGTCCATTTGCCAGTCAATTATCCTTCATGTCTACCTGGTATCTCGATT  
AACTCTGAACAGTTGACCAGGGCCAGTGTGTGACTGTGAAAGAGAATTTACTTGAGCAAGCAGAGAGCC  
TTTTGTGCGGAGCCTATGGTTCATGAGCTGGTTCCTGGATTTCAGCAGAATCTCAGGCATATCCTCAGCCA  
ACCAGAAACTGGCAGTGGCAGTAAAAGTGTACTTTTTCAACAAGCACGACCATGGATGATGGATTGTGG  
ATAACTCTTTTGCAATTTAGATCACATGAGAGCAAAGACTAAATATGTCAAATTTGGAGAAGTGGGCTT  
CAGATTTAAGGCTGACAGGAAGACTGATGTTTCATGGTAAAATAACTGATTTTACTACAGGGAGACAG  
AAACAACCTCAAGGAGTACTTGATTCTTCAGAAAACCTCCAAAGTAGATGTGGACTCAAGTGAAAGAAA  
TGCAAAGAGAAAATGATTAGTGTACTGTTTGAACAAAAGTACAGACAGAACACAAAAGGTTTCTGGCAT  
TTGAAGTCAAAGAGTATTCAGCGTTGGATGAATTACAAAAGGAATTTGAAACTGCAGGACTTAAGAAGCT  
TTTCTCGAATTTGTACTTGCTCTGGTAAAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG217602 representing NM\_015485  
 Red=Cloning site Green=Tags(s)

MAEPVQEELSVLAAIFCRPHEWEVLSRSETDGTVFRIHTKAEGFMDADIPLLVFHLVPVNYPSCLPGISI  
 NSEQLTRAQCVTYKENLLEQAESLLSEPMVHELVLWQQNLRHILSQPETGSGSEKCTFSTSTTMDGLW  
 ITLLHLDMRAKTKYVKIVEKWADLRLTGRLMFMGKIILLQGDNRNLKEYLILQKTSKVDVDSGKK  
 CKEKMISVLFETKVQTEHKRFLAFEVKEYSALDELQKEFETAGLKKLSEFVLALVK

TRTRPLE - GFP Tag - V

**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:**

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\\_015485.4](#), [NP\\_056300.2](#)

**RefSeq Size:** 1250 bp

**RefSeq ORF:** 804 bp

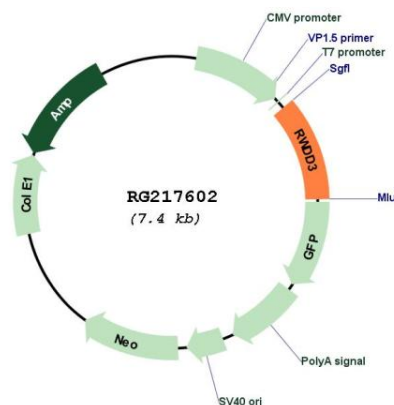
**Locus ID:** 25950

**Cytogenetics:** 1p21.3

**Domains:** RWD

**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 RG217602