

## Product datasheet for **RG236380**

### **RWDD3 (NM\_001278247) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** RWDD3 (NM\_001278247) 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:** >RG236380 representing NM\_001278247.  
Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTTTCTTCTGTGGTTCCTGCACCAGAGAGGCCGAGACAGATGGGACCGTGTCCAGAATTCAC
ACAAAAGCTGAAGGATTTATGGATGCGGATATACTCTGGAATTGGTGTCCATTTGCCAGTCAATTAT
CCTTCATGTCTACCTGGTATCTCGATTAACCTGAACAGTTGACCAGGGCCAGTGTGTGACTGTGAAA
GAGAATTTACTTGAGCAAGCAGAGAGCCTTTTGTCCGAGCCTATGGTTCATGAGCTGGTCTCTGGATT
CAGCAGAAATCTCAGGCATATCCTCAGCCAACCAGAAACTGGCAGTGGCAGTGAAAAGTGTACTTTTTCA
ACAAGCAGCACCATGGATGATGGATTGTGATAACTCTTTTGCATTTAGATCACATGAGAGCAAAGACT
AAATATGTCAAAATTGTGGAGAAGTGGGCTTCAGATTTAAGGCTGACAGGAAGACTGATGTTTCATGGGA
GTACTTGATTCTTCAGAAAACCTCCAAAGTAGATGTGGACTCAAGTGAAAGAAATGCAAAGAGAAAAT
GAT
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```

**Protein Sequence:** >Peptide sequence encoded by RG236380  
Blue=ORF Red=Cloning site Green=Tag(s)

```
MFLSCGSLHQRPETDGTVFRIHTKAEGFMDADIPLELVFHLVFNYPNSCLPGISINSEQLTRAQCVTVK
ENLLEQAESLLSEPMVHELVLWIQQNLRHILSQPETGSGSEKCTFSTSTTMDGLWITLLHLDHMRKT
KYVKIVEKWASDLRLTGRLMFMGVLDSSENLQSRCGLKWKEMQREND
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLSRDGGYSSVVDSHMHFKSAIHP SILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:** Sgfl-MluI



**Cloning Scheme:**


**ACCN:** NM\_001278247

**ORF Size:** 555 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).

**RefSeq:** [NM\\_001278247.1](#), [NP\\_001265176.1](#)

**RefSeq Size:** 1336 bp

**RefSeq ORF:** 558 bp

**Locus ID:** 25950

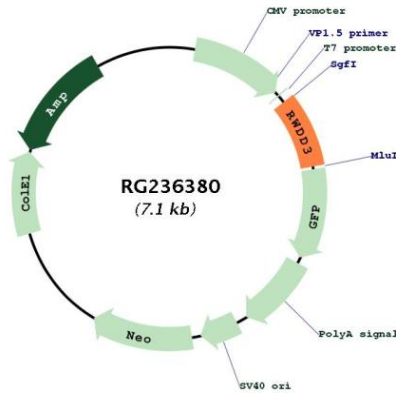
**UniProt ID:** [Q9Y3V2](#)

**Cytogenetics:** 1p21.3

**MW:** 21.5 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 RG236380