

Product datasheet for SC322884

RWDD3 (NM 001128142) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: RWDD3 (NM_001128142) Human Untagged Clone

Tag: Tag Free Symbol: RWDD3 **RSUME** Synonyms: **Mammalian Cell**

Selection:

Neomycin

Vector: pCMV6-Entry (PS100001) E. coli Selection: Kanamycin (25 ug/mL)

Fully Sequenced ORF: >SC322884 representing NM_001128142.

Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG

GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC

ATGGCGGAGCCTGTGCAGGAGGAGCTCTCGGTCCTGGCCGCGATTTTCTGCAGGCCCCACGAGTGGGAG GTGCTGAGCCGCTCAGAGACAGATGGGACCGTGTTCAGAATTCACACAAAAGCTGAAGGATTTATGGAT GCGGATATACCTCTGGAATTGGTGTTCCATTTGCCAGTCAATTATCCTTCATGTCTACCTGGTATCTCG AGCCTTTTGTCGGAGCCTATGGTTCATGAGCTGGTTCTCTGGATTCAGCAGAATCTCAGGCATATCCTC AGCCAACCAGAAACTGGCAGTGGCAGTGAAAAGTGTACTTTTTCAACAAGCACGACCATGGATGATGGA TTGTGGATAACTCTTTTGCATTTAGATCACATGAGAGCAAAGACTAAATATGTCAAAATTGTGGAGAAG TGGGCTTCAGATTTAAGGCTGACAGGAAGACTGATGTTCATGGGTAAAATAATACTGATTTTACTACAG

GGAGACAGAACAACCTCAAGGTGCCAAAAAGTTAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT

TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: Sgfl-Mlul

Plasmid Map:

ACCN: NM 001128142

Insert Size: 588 bp



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RWDD3 (NM_001128142) Human Untagged Clone - SC322884

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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: <u>NM 001128142.1</u>

RefSeq Size:1151 bpRefSeq ORF:588 bpLocus ID:25950UniProt ID:Q9Y3V2Cytogenetics:1p21.3

Gene Summary:

MW: 22.1 kDa

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

Transcript Variant: This variant (2) uses an alternate splice site and lacks an alternate exon in the 3' coding region, which results in a frameshift, compared to variant 1. The encoded

isoform (b) is shorter and has a distinct C-terminus, compared to isoform a.

UBE2I/UBC9. Has no effect on ubiquitination.[UniProtKB/Swiss-Prot Function]