

Product datasheet for TR301867

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RWDD3 Human shRNA Plasmid Kit (Locus ID 25950)

Product data:

Product Type: shRNA Plasmids

Product Name: RWDD3 Human shRNA Plasmid Kit (Locus ID 25950)

Locus ID: 25950 Synonyms: RSUME

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection: Format:

Retroviral plasmids

Components: RWDD3 - Human, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

25950). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: <u>NM 001128142</u>, <u>NM 001199682</u>, <u>NM 001278247</u>, <u>NM 001278248</u>, <u>NM 015485</u>, <u>NR 037643</u>,

NR 103483, NR 103484, NM 015485.1, NM 015485.2, NM 015485.3, NM 015485.4, NM 001128142.1, NM 001278247.1, NM 001199682.1, NM 001278248.1, BC010936,

BC016307, BC065813, BC125142

UniProt ID: Q9Y3V2

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]







shRNA Design:

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

Performance Guaranteed: OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).