

## **Product datasheet for TR320568**

## OriGene Technologies, Inc.

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## Vitamin D Receptor (VDR) Human shRNA Plasmid Kit (Locus ID 7421)

**Product data:** 

**Product Type:** shRNA Plasmids

**Product Name:** Vitamin D Receptor (VDR) Human shRNA Plasmid Kit (Locus ID 7421)

Locus ID: 7421

Synonyms: NR1I1; PPP1R163

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Selection:

Puromycin

Format:

Retroviral plasmids

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

7421). 5µg purified plasmid DNA per construct

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

RefSeq:

NM 000376, NM 001017535, NM 001017536, NM 000376.1, NM 000376.2, NM 001017535.1, NM 001017536.1, BC060832, BC060832.1, BC033465, BM685276, BM908433, NM 001364085,

NM 001017535.2, NM 001017536.2, NM 000376.3

UniProt ID: P11473

**Summary:** This gene encodes vitamin D3 receptor, which is a member of the nuclear hormone receptor

superfamily of ligand-inducible transcription factors. This receptor also functions as a receptor for the secondary bile acid, lithocholic acid. Downstream targets of vitamin D3 receptor are principally involved in mineral metabolism, though this receptor regulates a variety of other metabolic pathways, such as those involved in immune response and cancer.

Mutations in this gene are associated with type II vitamin D-resistant rickets. A single

nucleotide polymorphism in the initiation codon results in an alternate translation start site three codons downstream. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. A recent study provided evidence for

translational readthrough in this gene, and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation termination codon. [provided by

RefSeq, Jun 2018]





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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 <a href="mailto:techsupport@origene.com">techsupport@origene.com</a>. If you need a special design or shRNA sequence, please utilize our <a href="mailto:custom shRNA service">custom shRNA service</a>.

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).