

## **Product datasheet for KN209262BN**

#### OriGene Technologies, Inc.

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### **Vitamin D Receptor (VDR) Human Gene Knockout Kit (CRISPR)**

#### **Product data:**

**Product Type:** Knockout Kits (CRISPR)

**Format:** 2 gRNA vectors, 1 mBFP-Neo donor, 1 scramble control

**Donor DNA:** mBFP-Neo

Symbol: Vitamin D Receptor

Locus ID: 7421

**Components:** KN209262G1, Vitamin D Receptor gRNA vector 1 in pCas-Guide CRISPR vector (GE100002)

**KN209262G2**, Vitamin D Receptor gRNA vector 2 in pCas-Guide CRISPR vector (GE100002) **KN209262BND**, donor DNA containing left and right homologous arms and mBFP-Neo

functional cassette.

GE100003, scramble sequence in pCas-Guide vector

**Disclaimer:** These products are manufactured and supplied by OriGene under license from ERS. The kit is

designed based on the best knowledge of CRISPR technology. The system has been functionally validated for knocking-in the cassette downstream the native promoter. The efficiency of the knock-out varies due to the nature of the biology and the complexity of the

experimental process.

RefSeq: <u>NM 000376, NM 001017535, NM 001017536, NM 001364085</u>

UniProt ID: P11473

Synonyms: NR1I1; PPP1R163

**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

RefSeg, Jun 2018]





# **Product images:**

### Donor Vector Edited Chromosome



RFP, Luc, and mBFP will be under native gene promoter