

Product datasheet for **RC209262**

Vitamin D Receptor (VDR) (NM_000376) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Vitamin D Receptor (VDR) (NM_000376) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Vitamin D Receptor
Synonyms:	NR1H1; PPP1R163
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC209262 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGAGGCAATGGCGCCAGCACTTCCCTGCCTGACCCTGGAGACTTTGACCGGAACGTGCCCGGATCT
 GTGGGTGTGTGGAGACCGAGCCACTGGCTTTCACCTCAATGCTATGACCTGTGAAGGCTGCAAAGGCTT
 CTTGAGCGAAGCATGAAGCGGAAGCACTATTACCTGCCCTTCAACGGGACTGCCGCATACCAAG
 GACAACCGACGCCACTGCCAGGCTGCCGGCTCAAACGCTGTGTGGACATCGGCATGATGAAGGAGTTCA
 TTCTGACAGATGAGGAAGTGCAGAGGAAGCGGGAGATGATCCTGAAGCGGAAGGAGGAGGAGCCTTGA
 GGACAGTCTGCGGCCAAGCTGTCTGAGGAGCAGCAGCGCATCATTGCCATACTGCTGGACGCCACCAT
 AAGACCTACGACCCACCTACTCCGACTTCTGCCAGTTCGGCCTCCAGTTCGTGTGAATGATGGTGGAG
 GGACCATCCTCCAGGCCAACTCCAGACACTCCAGCTTCTCTGGGACTCCTCCTCCTGCTC
 AGATCACTGTATCACCTTTCAGACATGATGGACTCGTCCAGCTTCTCCAATCTGGATCTGAGTGAAGAA
 GATTGAGATGACCTTCTGTGACCTAGAGCTGTCCAGCTCTCCATGCTGCCACCTGGCTGACTGG
 TCAGTTACAGCATCCAAAAGTCAATGGCTTTGCTAAGATGATACCAGGATTCAGAGACCTCACCTCTGA
 GGACCAGATCGTACTGCTGAAGTCAAGTGCCATTGAGGTATCATGTTGCGCTCCAATGAGTCTTACC
 ATGGACGACATGTCTGGACCTGTGGCAACCAAGACTACAAGTACCGCTCAGTGACGTGACCAAAGCCG
 GACACAGCCTGGAGCTGATTGAGCCCTCATCAAGTCCAGGTGGGACTGAAGAAGCTGAAGTTCATGA
 GGAGGAGCATGTCTGCTCATGGCCATCGCATCGTCTCCCAGATCGTCTGGGTGCAGGACGCCGCG
 CTGATTGAGGCCATCCAGGACCGCTGTCCAACACTGCAGACGTACATCCGCTGCCGCCACCCGCC
 CGGGCAGCCACTGCTCTATGCCAAGATGATCCAGAAGCTAGCCGACCTGCGCAGCCTCAATGAGGAGCA
 CTCCAAGCAGTACCGCTGCCTCTCTCCAGCTGAGTGCAGCATGAAGCTAACGCCCTTGTGCTCGAA
 GTGTTGGCAATGAGATCTCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC209262 protein sequence
 Red=Cloning site Green=Tags(s)

MEAMAASLSPDPGDFDRNVPRICGVCGDRATGFHFNAMTCEGCKGFFRRSMKRKALFTCPFNDCRITK
 DNRRHCQACRLKRCVDIGMMKEFILTDEEVQRKREMILKRKEEALKDSLRLPKLSEEQRIIAILLDAH
 KTYDPTYSDFCQFRPPVRVNDGGGSHPSRPNRHTPSFSGDSSSSCDHCITSSDMMSSSFNLDLSEE
 DSDDPSVTLELSQLSMLPHLADLVYSIQKVIQVIFAKMIPGFRDLTSEDQIVLLKSSAIEVIMLRSNESFT
 MDDMSWTCGNQDYKYRVSVDVTKAGHSLELIEPLIKFQVGLKKNLHEEEHVLLMAICIVSPDRPGVQDAA
 LIEAIQDRLSNTLQTYIRCRHPPPGSHLLYAKMIQKLADLRSLNEEHSKQYRCLSFQPECSMKLTPLVLE
 VFGNEIS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6345_f02.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

ACCN: NM_000376

ORF Size: 1281 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

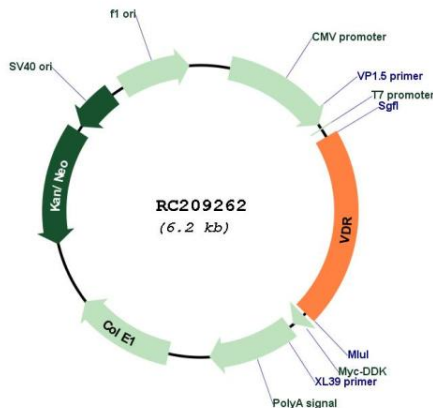
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

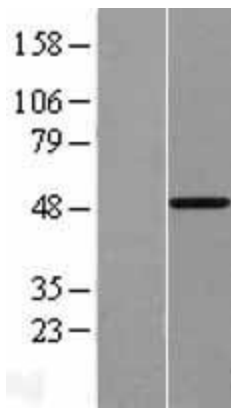
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_000376.3</u>
RefSeq Size:	4669 bp
RefSeq ORF:	1284 bp
Locus ID:	7421
UniProt ID:	<u>P11473</u>
Cytogenetics:	12q13.11
Protein Families:	Druggable Genome, Nuclear Hormone Receptor, Transcription Factors
MW:	48.3 kDa
Gene 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]

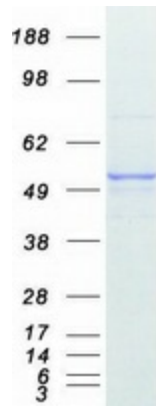
Product images:



Circular map for RC209262



Western blot validation of overexpression lysate (Cat# [LY424760]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209262 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified VDR protein (Cat# [TP309262]). The protein was produced from HEK293T cells transfected with VDR cDNA clone (Cat# RC209262) using MegaTran 2.0 (Cat# [TT210002]).