

**Anti-VDR Picoband Antibody**  
Catalog # ABO12145

**Specification**

**Anti-VDR Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	<a href="#">P11473</a>
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Vitamin D3 receptor(VDR) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-VDR Picoband Antibody - Additional Information**

**Gene ID** 7421

**Other Names**

Vitamin D3 receptor, VDR, 1, 25-dihydroxyvitamin D3 receptor, Nuclear receptor subfamily 1 group I member 1, VDR, NR1I1

**Calculated MW**

48289 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Nucleus.

**Protein Name**

Vitamin D3 receptor

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>.

**Immunogen**

A synthetic peptide corresponding to a sequence at the C-terminus of human VDR (377-402aa HLLYAKMIQKLADLRSLNEEHKQYR), different from the related mouse and rat sequences by one amino acid.

**Purification**

Immunogen affinity purified.

### Cross Reactivity

No cross reactivity with other proteins

### Storage

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

### Sequence Similarities

Belongs to the nuclear hormone receptor family. NR1 subfamily.

## Anti-VDR Picoband Antibody - Protein Information

Name VDR ([HGNC:12679](#))

Synonyms NR111

### Function

Nuclear receptor for calcitriol, the active form of vitamin D3 which mediates the action of this vitamin on cells (PubMed:[10678179](http://www.uniprot.org/citations/10678179)), PubMed:[15728261](http://www.uniprot.org/citations/15728261), PubMed:[16913708](http://www.uniprot.org/citations/16913708), PubMed:[28698609](http://www.uniprot.org/citations/28698609), PubMed:[37478846](http://www.uniprot.org/citations/37478846)). Enters the nucleus upon vitamin D3 binding where it forms heterodimers with the retinoid X receptor/RXR (PubMed:[28698609](http://www.uniprot.org/citations/28698609)). The VDR-RXR heterodimers bind to specific response elements on DNA and activate the transcription of vitamin D3-responsive target genes (PubMed:[28698609](http://www.uniprot.org/citations/28698609)). Plays a central role in calcium homeostasis (By similarity). Also functions as a receptor for the secondary bile acid lithocholic acid (LCA) and its metabolites (PubMed:[12016314](http://www.uniprot.org/citations/12016314), PubMed:[32354638](http://www.uniprot.org/citations/32354638)).

### Cellular Location

Nucleus {ECO:0000255|PROSITE-ProRule:PRU00407, ECO:0000269|PubMed:12145331, ECO:0000269|PubMed:16207705, ECO:0000269|PubMed:28698609}. Cytoplasm Note=Localizes mainly to the nucleus (PubMed:12145331, PubMed:28698609). Translocated into the nucleus via both ligand- dependent and ligand-independent pathways; ligand-independent nuclear translocation is mediated by IPO4 (PubMed:16207705)

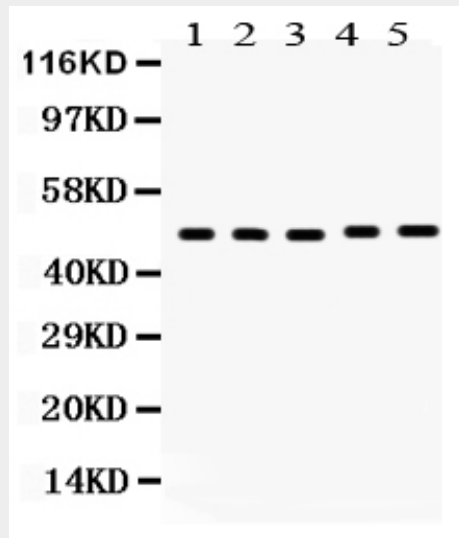
## Anti-VDR Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

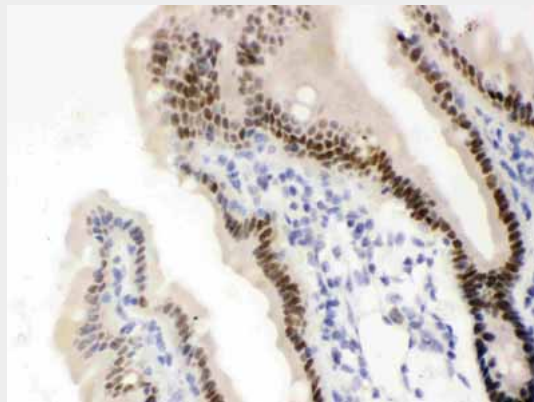
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

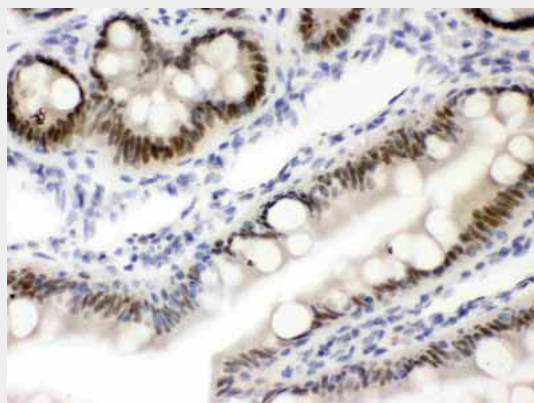
### Anti-VDR Picoband Antibody - Images



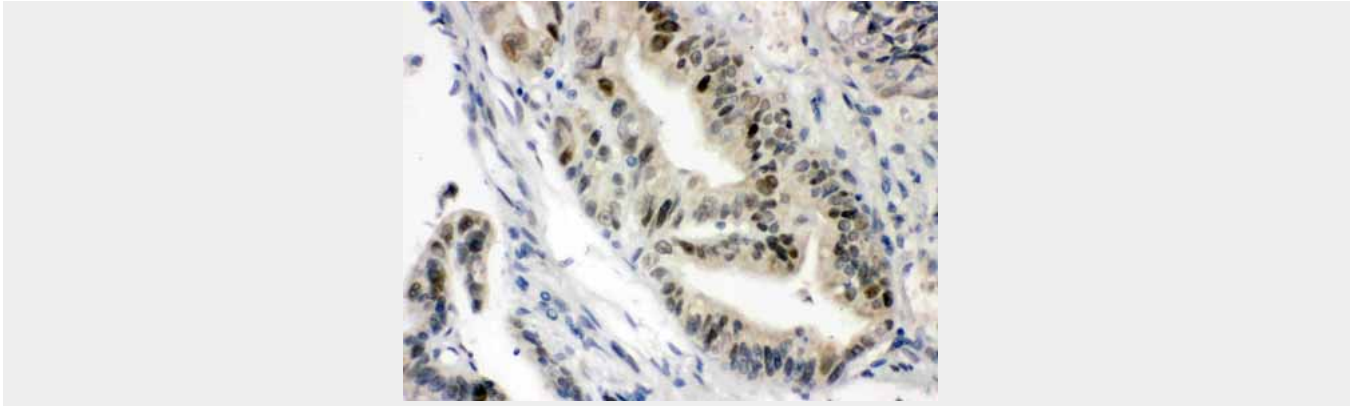
Anti-VDR Picoband antibody, ABO12145, Western blotting All lanes: Anti VDR (ABO12145) at 0.5ug/ml  
Lane 1: Human Placenta Tissue Lysate at 50ug  
Lane 2: Rat Kidney Tissue Lysate at 50ug  
Lane 3: Rat Liver Tissue Lysate at 50ug  
Lane 4: Rat Pancreas Tissue Lysate at 50ug  
Lane 5: HELA Whole Cell Lysate at 40ug  
Predicted bind size: 48KD  
Observed bind size: 48KD



Anti-VDR Picoband antibody, ABO12145, IHC(P) IHC(P): Mouse Intestine Tissue



Anti-VDR Picoband antibody, ABO12145, IHC(P) IHC(P): Rat Intestine Tissue



Anti-VDR Picoband antibody, ABO12145, IHC(P)IHC(P): Human Intestinal Cancer Tissue

### **Anti-VDR Picoband Antibody - Background**

VDR (Vitamin D Receptor), also known as Vitamin D Hormone Receptor, is a member of the nuclear receptor family of transcription factors. Labuda et al. (1991) assigned the VDR gene to 12q12-q14 by in situ hybridization. Using mutation analysis, Jurutka et al. (2000) characterized arg18/arg22, VDR residues immediately N-terminal of the first DNA-binding zinc finger, as vital for contact with the general transcription factor IIB (TFIIB). A natural polymorphic variant of VDR, termed F/M4 (missing a FokI restriction site), which lacks only the first 3 amino acids (including glu2), interacted more efficiently with TFIIB and also possessed elevated transcriptional activity compared with the full-length (f/M1) receptor. Shah et al. (2006) stated that the signaling and oncogenic activity of beta-catenin (CTNNB1) can be repressed by activation of VDR. Conversely, high levels of beta-catenin can potentiate the transcriptional activity of 1,25-dihydroxyvitamin D3.