BOSTER BIOLOGICAL TECHNOLOGY
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# Anti-Vitamin D Receptor/VDR Antibody Picoband®

**Catalog Number:** PB9456

## About VDR

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.

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## Overview

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|---|---|
| Product Name | Anti-Vitamin D Receptor/VDR Antibody Picoband® |
| Reactive Species | Human, Mouse, Rat |
| Description | Boster Bio Anti-Vitamin D Receptor/VDR Antibody Picoband® catalog # PB9456. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application | IHC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na2HPO4, and 0.05 mg NaN3.<br>*This antibody is supplied in a stabilized formulation.<br>Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required. |
| Storage Instructions | Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles. |
| Host | Rabbit |
| Uniprot ID | P11473 |

BOSTER
antibody and ELISA experts

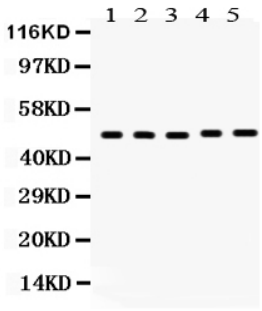
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## Technical Details

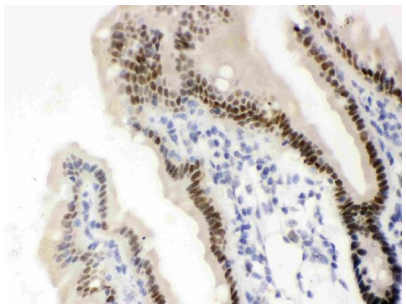
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| Immunogen | A synthetic peptide corresponding to a sequence at the C-terminus of human VDR, different from the related mouse and rat sequences by one amino acid. |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P). |
| Cross Reactivity | No cross-reactivity with other proteins |
| Isotype | Rabbit IgG |
| Form | Lyophilized |
| Concentration | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. |
| Purification | Immunogen affinity purified. |
| Suggested Dilutions | Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat<br>Western blot, 0.1-0.5ug/ml, Human, Rat |

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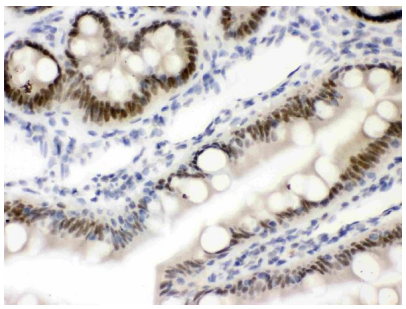
# Anti-Vitamin D Receptor/VDR Antibody Picoband® (PB9456) Images




Western blot analysis of VDR using anti-VDR antibody (PB9456). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. 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. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-VDR antigen affinity purified polyclonal antibody (Catalog # PB9456) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for VDR at approximately 48 kDa. The expected band size for VDR is at 48 kDa.



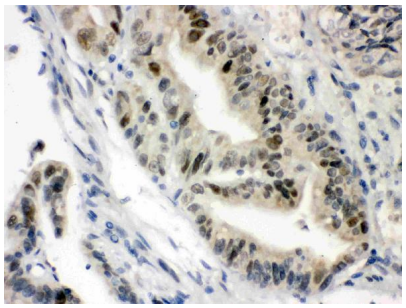
IHC analysis of VDR using anti-VDR antibody (PB9456). VDR was detected in a paraffin-embedded section of mouse intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-VDR Antibody (PB9456) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



IHC analysis of VDR using anti-VDR antibody (PB9456). VDR was detected in a paraffin-embedded section of rat intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-VDR Antibody (PB9456) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

IHC analysis of VDR using anti-VDR antibody (PB9456). VDR was detected in a paraffin-embedded section of human intestinal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml

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## 3 Publications Citing This Product

1. PubMed ID: 26959817, Comparative Transcriptome Analysis of Fetal Skin Reveals Key Genes Related to Hair Follicle Morphogenesis in Cashmere Goats

2. PubMed ID: 29218094, (+)-Cholesten-3-one induces osteogenic differentiation of bone marrow mesenchymal stem cells by activating vitamin D receptor

3. PubMed ID: 29218094, (+)-Cholesten-3-one induces osteogenic differentiation of bone marrow mesenchymal stem cells by activating vitamin D receptor

Visit bosterbio.com/anti-vdr-picoband-trade-antibody-pb9456-boster.html to see all 3 publications.

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