

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.

Overview

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.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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

Technical Details

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.
Predicted Reactive Species	Hamster
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	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5ug/ml, Human, Rat

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

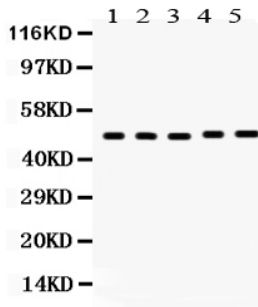


Figure 1. Western blot analysis of VDR using anti-VDR antibody (PB9456).

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.

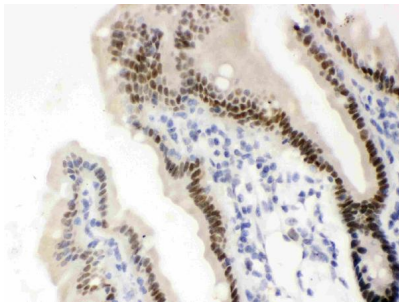


Figure 2. IHC analysis of VDR using anti-VDR antibody (PB9456).

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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

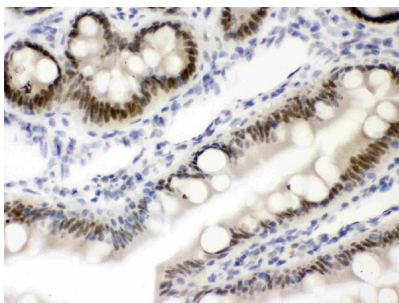
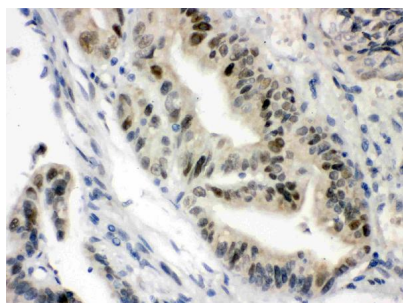


Figure 3. IHC analysis of VDR using anti-VDR antibody (PB9456).

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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

Figure 4. 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 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 Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.

2 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

Visit bosterbio.com/anti-vdr-picoband-trade-antibody-pb9456-boster.html to see all 2 publications.

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