

Anti-VDR Picoband Antibody
Catalog # ABO12145**Specification****Anti-VDR Picoband Antibody - Product Information**

Application	WB, IHC
Primary Accession	P11473
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
Western blot, 0.1-0.5 µg/ml, Human, Rat

Subcellular Localization

Nucleus.

Protein Name

Vitamin D3 receptor

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

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 r°Constitution, 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, PubMed:15728261, PubMed:16913708, PubMed:28698609, PubMed:37478846). Enters the nucleus upon vitamin D3 binding where it forms heterodimers with the retinoid X receptor/RXR (PubMed:28698609). The VDR-RXR heterodimers bind to specific response elements on DNA and activate the transcription of vitamin D3-responsive target genes (PubMed: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, PubMed: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)

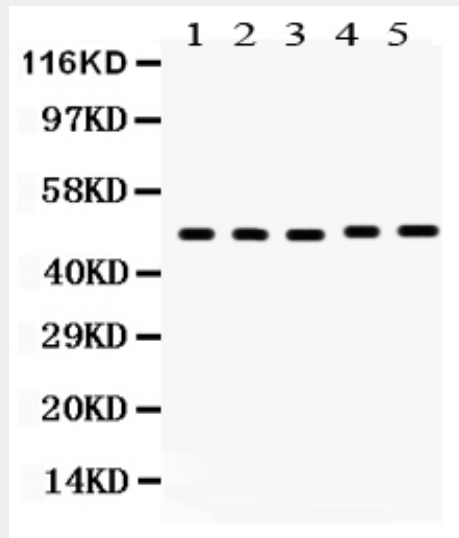
Anti-VDR Picoband Antibody - Protocols

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

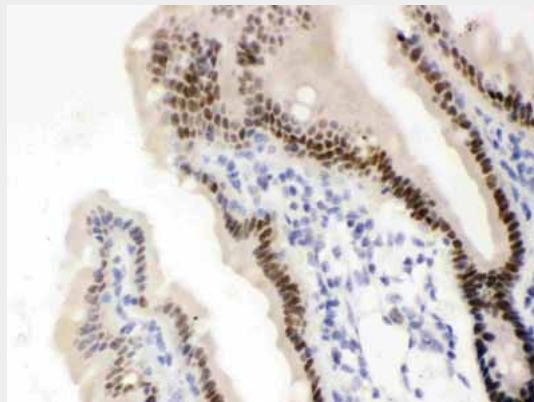
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

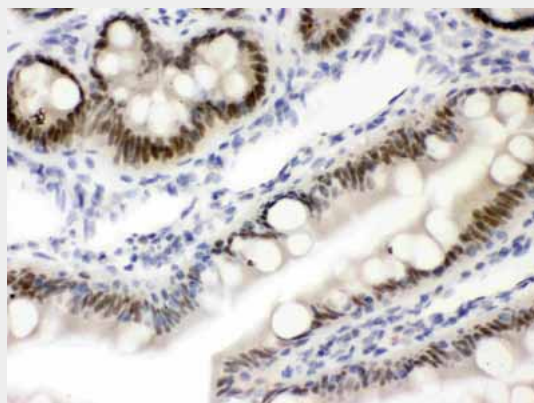
Anti-VDR Picoband Antibody - Images



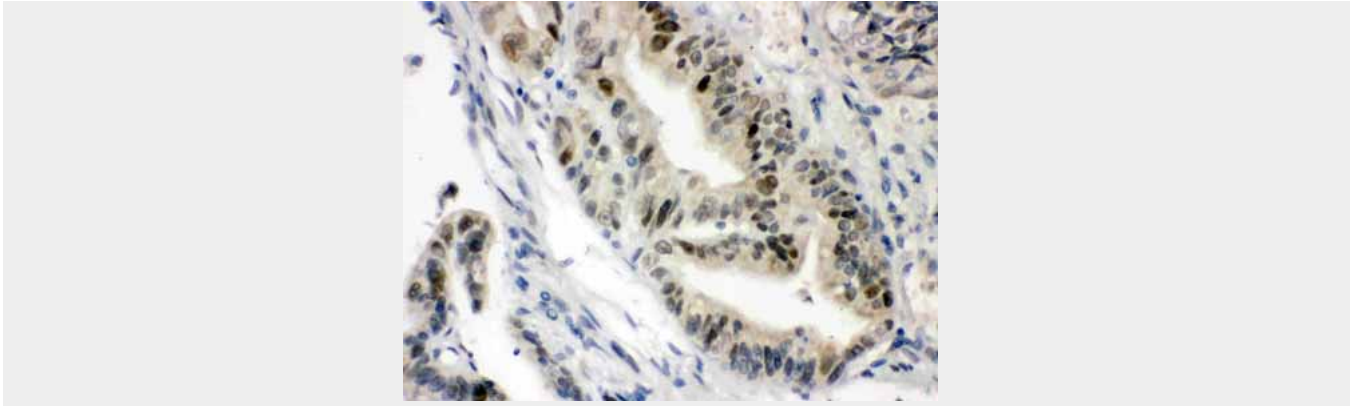
Anti-VDR Picoband antibody, ABO12145, Western blotting All lanes: Anti VDR (ABO12145) at 0.5ug/ml
Lane 1: Human Placenta Tissue Lysate at 50ug
Lane 2: Rat Kidney Tissue Lysate at 50ug
Lane 3: Rat Liver Tissue Lysate at 50ug
Lane 4: Rat Pancreas Tissue Lysate at 50ug
Lane 5: HELA Whole Cell Lysate at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