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VDR Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14793c

Product Information

Application	FC, WB, E
Primary Accession	P11473
Other Accession	NP_001017535.1, NP_000367.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	48289
Antigen Region	274-299

Additional Information

Gene ID	7421
Other Names	Vitamin D3 receptor, VDR, 25-dihydroxyvitamin D3 receptor, Nuclear receptor subfamily 1 group I member 1, VDR, NR1I1
Target/Specificity	This VDR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 274-299 amino acids from the Central region of human VDR.
Dilution	FC~~1:10~50 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	VDR Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	VDR (HGNC:12679)
Synonyms	NR1I1
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)

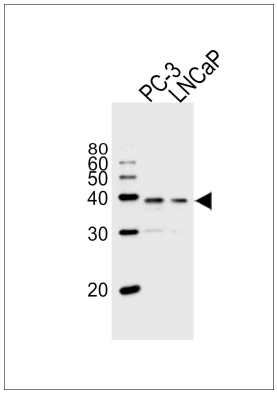
Background

This gene encodes the nuclear hormone receptor for vitamin D3. This receptor also functions as a receptor for the secondary bile acid lithocholic acid. The receptor belongs to the family of trans-acting transcriptional regulatory factors and shows sequence similarity to the steroid and thyroid hormone receptors. Downstream targets of this nuclear hormone receptor are principally involved in mineral metabolism though the receptor regulates a variety of other metabolic pathways, such as those involved in the 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. Alternative splicing results in multiple transcript variants encoding the same protein.

References

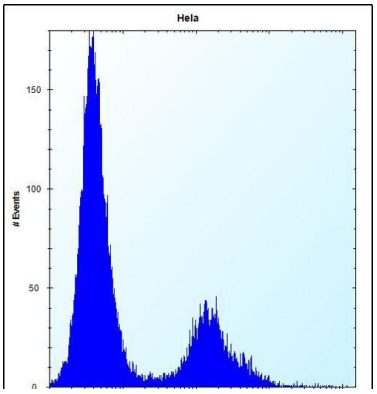
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Images



Western blot analysis of lysates from PC-3, LNCaP cell line (from left to right), using VDR Antibody (Center)(Cat. #AP14793c). AP14793c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody.

VDR Antibody (Center) (Cat. #AP14793c) flow cytometric analysis of Hela cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated donkey-anti-rabbit secondary antibodies were used for the analysis.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.