

**CUSABIO TECHNOLOGY LLC** 

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## VDR Recombinant Monoclonal Antibody

Product Code	CSB-RA945260A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P11473
Immunogen	A synthesized peptide derived from human Vitamin D Receptor
Species Reactivity	Human
<b>Tested Applications</b>	ELISA, WB, IHC; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200
Relevance	Nuclear hormone receptor. Transcription factor that mediates the action of vitamin D3 by controlling the expression of hormone sensitive genes. Recruited to promoters via its interaction with BAZ1B/WSTF which mediates the interaction with acetylated histones, an essential step for VDR-promoter association. Plays a central role in calcium homeostasis.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Epigenetics and Nuclear Signaling; Cancer; Signal transduction
Gene Names	VDR
Clone No.	3C7

Image



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IHC image of CSB-RA945260A0HU diluted at 1:100 and staining in paraffin-embedded human colon cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4? overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

## Description

The VDR recombinant monoclonal antibody is produced in four steps: (1) sequencing the VDR monoclonal antibody gene, (2) cloning the gene into a plasmid vector, (3) transfecting the VDR monoclonal antibody gene-carrying vector into a host cell line, and (4) purifying the VDR recombinant monoclonal antibody from the cell culture supernatant using affinity chromatography. The VDR monoclonal antibody is created by using a synthesized peptide derived from the human VDR protein as the immunogen. This recombinant monoclonal antibody is recommended for use in ELISA, WB, and IHC assays to detect human VDR protein.

The VDR mainly regulates gene expression in response to the hormone 1,25dihydroxy vitamin D3 (1,25(OH)2D3), which is the active form of vitamin D3. Upon binding to 1,25(OH)2D3, VDR forms a complex with another protein, retinoid X receptor (RXR), and together they bind to specific regions of DNA called vitamin D response elements (VDREs) in the promoter region of target genes. This complex then recruits other proteins to activate or repress the transcription of the target genes, which leads to a wide range of biological effects, including calcium and phosphate metabolism, immune response, cell differentiation, and proliferation.