**BACKGROUND**

The active metabolite of vitamin D modulates the expression of a wide variety of genes in a developmentally-specific manner. This secosteroid hormone can up- or downregulate the expression of genes involved in a diverse array of responses such as proliferation, differentiation and calcium homeostasis. 1,25-(OH)₂-vitamin D₃ exerts its effects through interaction with the vitamin D receptor (VDR), a member of the superfamily of hormone-activated nuclear receptors. In its ligand-bound state, the VDR forms heterodimers with the 9-cis retinoic acid receptor, RXR, and affects gene expression by binding specific DNA sequences known as hormone response elements, or HREs. In addition to regulating the above-mentioned cellular responses, 1,25-(OH)₂-vitamin D₃ exhibits antiproliferative properties in osteosarcoma, melanoma, colon carcinoma and breast carcinoma cells.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: VDR (human) mapping to 12q13.11; Vdr (mouse) mapping to 15 F1.

**SOURCE**

VDR (D-6) is a mouse monoclonal antibody raised against amino acids 344-424 of VDR of human origin.

**PRODUCT**

Each vial contains 200 µg IgG₂κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13133 X, 200 µg/0.1 ml.

VDR (D-6) is available conjugated to agarose (sc-13133 AC), 500 µg/0.25 ml agarose in 1 ml, for IP, to HRP (sc-13133 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-13133 PE), fluorescein (sc-13133 FITC), Alexa Fluor® 488 (sc-13133 AF488), Alexa Fluor® 546 (sc-13133 AF546), Alexa Fluor® 594 (sc-13133 AF594) or Alexa Fluor® 647 (sc-13133 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-13133 AF680) or Alexa Fluor® 790 (sc-13133 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, VDR (D-6) is available conjugated to biotin (sc-13133 B), 200 µg/ml, for WB, IHC(P) and ELISA.

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**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**APPLICATIONS**

VDR (D-6) is recommended for detection of VDR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for VDR siRNA (h): sc-106692, VDR siRNA (m): sc-36811, VDR shRNA Plasmid (h): sc-106692-SH, VDR shRNA Plasmid (m): sc-36811-SH, VDR shRNA (h) Lentiviral Particles: sc-106692-V and VDR shRNA (m) Lentiviral Particles: sc-36811-V.

VDR (D-6) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight (predicted) of VDR isoforms: 48/53 kDa.

Molecular Weight (observed) of VDR isoforms: 48-60 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or SK-BR-3 cell lysate: sc-2218.

**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.