

# VDR (m): 293T Lysate: sc-124548

## 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)<sub>2</sub>-vitamin D<sub>3</sub> 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)<sub>2</sub>-vitamin D<sub>3</sub> exhibits antiproliferative properties in osteosarcoma, melanoma, colon carcinoma and breast carcinoma cells.

## REFERENCES

1. Lowe, K.E., et al. 1992. Vitamin D-mediated gene expression. *Crit. Rev. Eukaryot. Gene Expr.* 2: 65-109.
2. Studzinski, G.P., et al. 1993. Signaling pathways for vitamin D-induced differentiation: implications for therapy of proliferative and neoplastic diseases. *Crit. Rev. Eukaryot. Gene Expr.* 3: 279-312.
3. Buras, R.R., et al. 1994. Vitamin D receptors in breast cancer cells. *Breast Cancer Res. Treat.* 31: 191-202.
4. Bikle, D.D. 1994. Role of vitamin D, its metabolites, and analogs in the management of osteoporosis. *Rheum. Dis. Clin. North Am.* 20: 759-775.
5. Mangelsdorf, D.J., et al. 1994. The retinoid receptors. In Sporn, M.B., et al, eds. *The Retinoids: Biology, Chemistry, and Medicine*. New York: Raven Press, Ltd., 319-349.
6. Whitfield, G.K., et al. 1995. Genomic actions of 1,25-dihydroxyvitamin D<sub>3</sub>. *J. Nutr.* 125: 1690S-1694S.
7. Feldman, D., et al. 1995. Vitamin D and prostate cancer. *Adv. Exp. Med. Biol.* 375: 53-63.

## CHROMOSOMAL LOCATION

Genetic locus: *Vdr* (mouse) mapping to 15 F1.

## PRODUCT

VDR (m): 293T Lysate represents a lysate of mouse VDR transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## APPLICATIONS

VDR (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive VDR antibodies. Recommended use: 10-20 µl per lane.

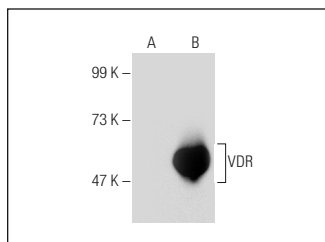
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

VDR (D-6): sc-13133 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse VDR expression in VDR transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:  
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

## DATA



VDR (D-6): sc-13133. Western blot analysis of VDR expression in non-transfected: sc-117752 (A) and mouse VDR transfected: sc-124548 (B) 293T whole cell lysates.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.