

p-VDR(S208) polyclonal antibody

Catalog: BS64411

Host: R

Rabbit

Reactivity: Human, Rat, Mouse

BackGround:

Although originally identified based on their roles in calcium and bone homeostasis, the vitamin D3 receptor (VDR/NR1I1) and its ligand $1-\alpha$. 25-dihydroxycholecalciferol [1a, 25(OH)2D3] are now recognized to exert biological effects in almost every tissue of the human body. Targets for vitamin D signaling include the central nervous system, skin, immune system, endocrine glands, kidney, and colon. At the cellular level, vitamin D signaling affects proliferation, differentiation, and apoptosis of both normal and transformed cells. Within the steroid receptor gene family, VDR belongs to the NR1I subfamily that also includes NR1I2/PXR and NR1I3/CAR. The human VDR gene is composed of 11 exons that encode six domains (A-F) of the full length VDR protein, which includes an N-terminal dual zinc finger DNA binding domain, a C-terminal ligand-binding activity domain, and an extensive unstructured region that links the two functional domains together . Upon 1α , 25(OH)2D3 binding to the hormone ligand-binding domain, VDR is stabilized by the phosphorylation of Ser51 in the DNA-binding domain by PKC, and Ser208 in the hinge region by casein kinase II. VDR associates with the retinoic acid receptor (RXR) through dimerization domains. The 1a, 25(OH)2D3-VDR-RXR complex binds to the vitamin D response elements (VDREs) in the promoters of target genes through the DNA-binding domain. Ligand-induced conformation changes in VDR results in the dissociation of the co-repressor, silencing-mediator for retinoid and thyroid hormone receptors (SMRT), and allows interaction of the VDR activation function (AF2) transactivation domain with transcriptional coactivators.

Studies have shown that variable VDR expression is associated with different forms or stages of cancer and likely results from tissue-type variation in 1α , 25(OH)2D3 signaling. In the case of colon cancer, re-

Bioworld Technology, Inc. Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416,USA. Email: info@bioworlde.com Tel: 6123263284 Fax: 6122933841 search indicates that VDR expression is relatively higher in hyperplastic colon polyps and during early tumorigenesis but diminishes in later stage, poorly differentiated tumors. Multiple studies suggest that 1α , 25(OH)2D3 may be an attractive target for development as a therapeutic anticancer agent.

Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.3.

Molecular Weight:

~ 43 kDa

Swiss-Prot:

P11473

Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

Applications:

WB: 1:500~1:1000

Storage&Stability:

Store at $4 \,^{\circ}{\rm C}$ short term. Aliquot and store at $-20 \,^{\circ}{\rm C}$ long term. Avoid freeze-thaw cycles.

Specificity:

p-VDR(S208) polyclonal antibody detects endogenous levels of p-VDR(S208) protein.

DATA:



Western blot (WB) analysis of SUV39H2 polyclonal antibody at 1:500 dilution

Lane1:SK-OVCAR3 whole cell lysate(40ug)

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PRODUCT DATA SHEET

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Lane2:THP-1 whole cell lysate(40ug) Lane3:HEK293T whole cell lysate(40ug) Lane4:HCT116 whole cell lysate(40ug) Note:

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

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