

Vitamin D Receptor (VDR) Active Protein | VDR active protein

Active Vitamin D Receptor (VDR)

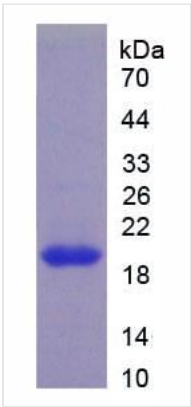
CATALOG # AAA148172	HOST E. coli	REACTIVITY Homo sapiens (Human)	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Vitamin D Receptor (VDR); Active Vitamin D Receptor (VDR); NR111; Nuclear Receptor Subfamily 1 Group I Member 1; Calcitriol Receptor; 1; 25-dihydroxyvitamin D3 receptor; VDR active protein

PRODUCT SPECIFICATIONS

Host	E. coli
Reactivity	Homo sapiens (Human)
Purity/Purification	>92%
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Concentration	Original Concentration: 1000ug/mL (varies by lot)
Applicable Applications for VDR active protein	Activity Assay, Cell Culture
Source	Prokaryotic expression.
Residues	Met272~Ser427
Tags	N-terminal His-tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method).
Predicted isoelectric point	6.5
Usage	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
Preparation and Storage	Storage: Avoid repeated freeze/thaw cycles. Store at 2-8 degree C for one month. Aliquot and store at -80 degree C for 12 months. Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37 degree C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.



SDS-PAGE

Figure 2. SDS-PAGE Sample: Active recombinant VDR, Human

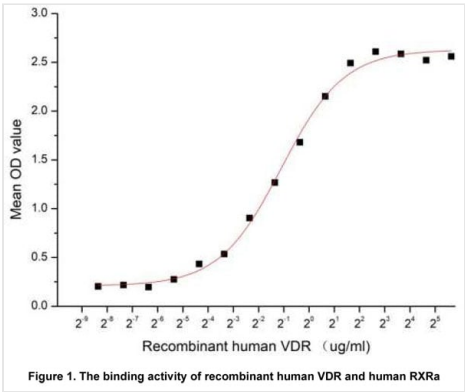


Figure 1. The binding activity of recombinant human VDR and human RXRa

Bioactivity

Vitamin D Receptor (VDR) is the nuclear hormone receptor for vitamin D3. The receptor belongs to the family of trans-acting transcriptional regulatory factors and shows sequence similarity to the steroid and thyroid hormone receptors. It mediates the action of vitamin D3 by controlling the expression of hormone sensitive genes. Besides, E1A binding protein p300 (EP300) has been identified as an interactor of VDR, thus a binding ELISA assay was conducted to detect the interaction of recombinant human VDR and recombinant human EP300. Briefly, VDR were diluted serially in PBS, with 0.01%BSA (pH 7.4). Duplicate samples of 100uL were then transferred to EP300-coated microtiter wells and incubated for 2h at 37 degree C. Wells were washed with PBST and incubated for 1h with anti-VDR pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 degree C. Finally, add 50uL stop solution to the wells and read at 450nm immediately. The binding activity of of VDR and EP300 was shown in Figure 1, and this effect was in a dose dependent manner.

MLRSNESFT MDDMSWTCGN QDYKYRVSDV
TKAGHSLELI EPLIKFQVGL KKLNLHEEEH VLLMAICIVS PDRPGVQDAA
LIEAIDRLS NTLQTYIRCR HPPPGSHLLY AKMIQKLADL RSLNEEHSKQ
YRCLSFQPEC SMKLTPLVLE VFGNEIS

Sequence

ADDITIONAL INFORMATION

Product Categories/Family for VDR active protein	Metabolic pathway; Endocrinology
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NCBI AND UNIPROT INFORMATION

NCBI GI #	4507883
NCBI GeneID	7421
NCBI Accession #	NP_000367.1
NCBI GenBank Nucleotide #	NM_000376.2
UniProt Accession #	P11473; Q5PSV3; B2R5Q1; G3V1V9
Molecular Weight	Predicted Molecular Mass: 21.6kDa Accurate Molecular Mass: 20kDa as determined by SDS-PAGE reducing conditions.
NCBI Official Full Name	vitamin D3 receptor isoform VDRA
NCBI Official Synonym Full Names	vitamin D receptor
NCBI Official Symbol	VDR
NCBI Official Synonym Symbols	NR1I1; PPP1R163
NCBI Protein Information	vitamin D3 receptor
UniProt Protein Name	Vitamin D3 receptor

UniProt Gene Name	VDR
UniProt Synonym Gene Names	NR1I1; VDR

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-homo-sapiens-human-active-protein/vitamin-d-receptor-vdr/148172>