APA475Hu01 100μg
Active Vitamin D Receptor (VDR)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR IN VITRO USE AND RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Met272~Ser427
Tags: N-terminal His-tag
Purity: >92%
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 6.5
Predicted Molecular Mass: 21.6kDa
Accurate Molecular Mass: 20kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8ºC for one month.
Aliquot and store at -80ºC 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 37ºC 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.

[SEQUENCE]

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

[ACTIVITY]

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℃. 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℃. Finally, add 50μL 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.

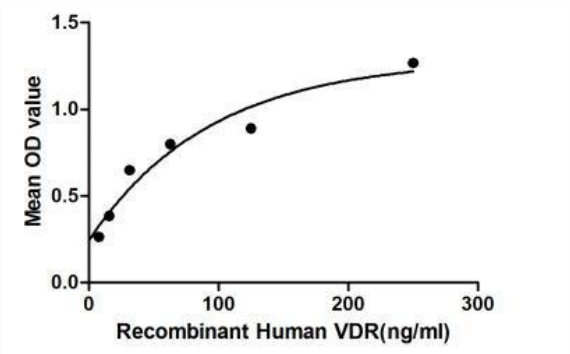

Figure 1. The binding activity of VDR with EP300.

[IDENTIFICATION]

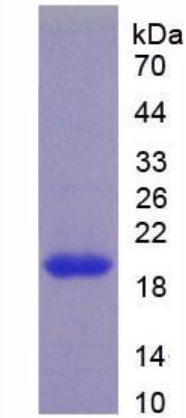

Figure 2. SDS-PAGE

Sample: Active recombinant VDR, Human

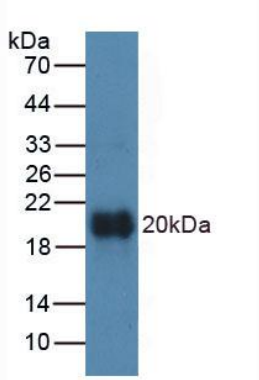

Figure 3. Western Blot

Sample: Recombinant VDR, Human;

Antibody: Rabbit Anti-Human VDR Ab (PAA475Hu01)