APA475Hu01 5mg
Active Vitamin D Receptor (VDR)
Organism Species: Homo sapiens (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

12th Edition (Revised in Aug, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Met272~Ser427
Tags: N-terminal His-tag
Purity: >92%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 5% Trehalose.
Original Concentration: 600μg/mL
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 10mM PBS (pH7.4) 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 37°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.

[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, Retinoid X Receptor Alpha (RXRa) 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 RXRa. Briefly, VDR were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to RXRa-coated microtiter wells and incubated for 1h at 37℃. Wells were aspirated 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 5 times. With the addition of substrate solution , wells were incubated 15-25 minutes at 37℃. Finally, add 50 μL stop solution to the wells and read at 450nm immediately. The binding activity of of VDR and RXRa was shown in Figure 1, and this effect was in a dose dependent manner. The EC50 for this effect is 0.469 ug/mL.

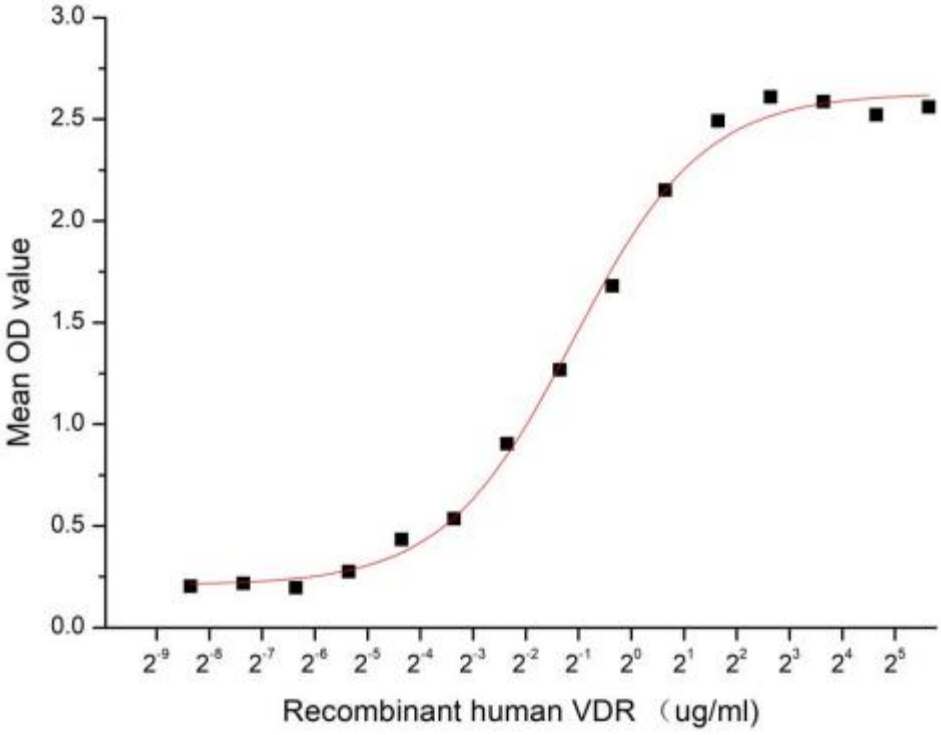

Figure 1. The binding activity of recombinant human VDR and human RXRa

[IDENTIFICATION]

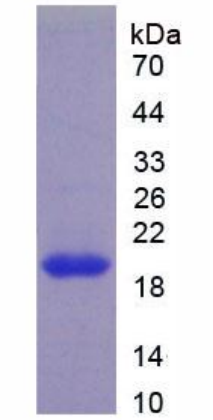

Figure 2. SDS-PAGE

Sample: Active recombinant VDR, Human

[IMPORTANT NOTE]

The kit is designed for research use only，we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.