

Datasheet for ABIN5659964
Vitamin D3 ELISA Kit



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Overview

Quantity:	96 tests
Target:	Vitamin D3
Reactivity:	Various Species
Method Type:	Competition ELISA
Detection Range:	4.94 ng/mL - 400 ng/mL
Minimum Detection Limit:	4.94 ng/mL
Application:	ELISA

Product Details

Sample Type:	Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This assay has high sensitivity and excellent specificity for detection of Vitamin D3 (VD3). No significant cross-reactivity or interference between Vitamin D3 (VD3) and analogues was observed.
Sensitivity:	1.85 ng/mL

Target Details

Target:	Vitamin D3
Abstract:	Vitamin D3 Products

Target Details

Background: Gene Name: Vitamin D3
Gene Aliases: Cholecalciferol, Toxiferol, Activated 7-Dehydrocholesterol

Application Details

Comment: The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5 % within the expiration date under appropriate storage condition. To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.

Assay Time: 2 h

Plate: Pre-coated

Protocol: This assay employs the competitive inhibition enzyme immunoassay technique. A monoclonal antibody specific to Vitamin D3 (VD3) has been pre-coated onto a microplate. A competitive inhibition reaction is launched between biotin labeled Vitamin D3 (VD3) and unlabeled Vitamin D3 (VD3) (Standards or samples) with the pre-coated antibody specific to Vitamin D3 (VD3). After incubation the unbound conjugate is washed off. Next, avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. The amount of bound HRP conjugate is reverse proportional to the concentration of Vitamin D3 (VD3) in the sample. After addition of the substrate solution, the intensity of color developed is reverse proportional to the concentration of Vitamin D3 (VD3) in the sample.

Assay Precision: Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level Vitamin D3 (VD3) were tested 20 times on one plate, respectively
Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level Vitamin D3 (VD3) were tested on 3 different plates, 8 replicates in each plate. $CV(\%) = \frac{SD}{\text{mean}} \times 100$
Intra-Assay: $CV < 10\%$
Inter-Assay: $CV < 12\%$

Restrictions: For Research Use only

Handling

Handling Advice: The Stop Solution is acidic. Do not allow to contact skin or eyes. Calibrators, controls and specimen samples should be assayed in duplicate. Once the procedure has been started, all steps should be completed without interruption.

Handling

Storage: 4 °C,-20 °C

Storage Comment: -20°C. Bring all reagents to room temperature before beginning test. The kit may be stored at 4°C for immediate use within two days upon arrival. Reseal any unused strips with desiccant pack. Minimize freeze/thaw cycles.

Expiry Date: 4-8 months