



## 25-OH Vitamin D (Total) ...a Boon for Good Health!

First Indian  
Company to  
manufacture  
Vitamin D Test kit  
based on  
most advanced  
fluorescence  
immunoassay  
method



CONVENIENT PACKSIZE:  
**10 Tests**

## VITAMIN D QUANTI CARD


Fluorescence immunoassay (antigen-antibody) for the  
Quantitative measurement of **25-OH Vitamin D (Total)** in Human Serum

- **Principle:** Based on most advanced fluorescence immunoassay method
- **Quantitative detection of 25-OH Vitamin D2 & D3**
- **Individually pouched test cartridge, each cartridge is precision engineered with embeded lot data. No chip required**
- **Accurate Results traceable to international standard reference NIST-SRM 972a**
- **Excellent result corelation with LC-MS/MS**
- **Results within 15 Minutes after adding prepared sample in the cartridge**
- **Longer Shelf Life: 18 Months at 2-8°C**
- **Linearity Range: 4 - 80 ng/ ml**

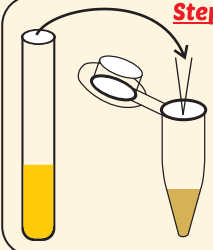
## Significance of Vitamin D

- Vitamin D is essential for strong bones, muscles and overall health.
- It controls calcium level in body and helps in maintaining bone structure.
- Vitamin D has other roles in the body, including modulation of cell growth, neuromuscular and immune function, and reduction of inflammation.
- It reduces the risk of Skin Cancer, Flu, Cardiovascular diseases, Developing diabetes, Osteoporosis, Autoimmune disease etc.

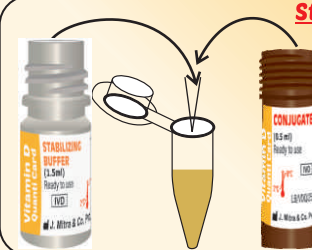
## Test Procedure

**Step-1**  


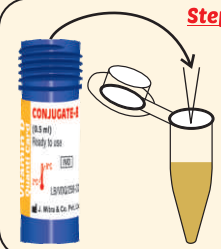
Take 50µl of Releasing Buffer in a fresh micro tube.

**Step-2**  


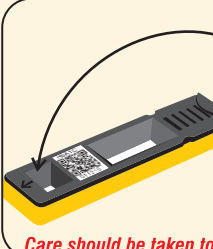
Add 50µl of serum sample. Mix well by vortexing for 10 sec. using iVortexer and incubate for 8 minutes by placing it in the pre-heated iHeating block.

**Step-3**  



Add 50µl of Stabilizing Buffer and 50µl of Conjugate-A. Mix well by vortexing for 10 sec. and incubate for 15 minutes by placing it in the pre-heated i Heating block.

**Step-4**  


Add 50µl of Conjugate-B to the reaction mixture. Mix well by vortexing for 10 seconds.

**Step-5**  


Quickly load the 50µl of the mixed solution to the sample well of the cartridge and reaction to occur for 15 minutes.  
*Care should be taken to avoid any spillage on the QR Code.*

**Step-6**  


Place the test cartridge in the iQuant Analyzer and Read Result.\*

\* Result interpretation time, taken by iQuant analyzer for a sample is less than 1 minute, hence more number of tests can be performed in a given time.

## Measuring Range

Vitamin D : 4ng/ml to 80 ng/ml

## Precision

Within-run and between-run precisions have been determined by testing 10 replicates of 20 Vitamin D samples covering entire measuring range: low, medium & high. The C.V (%) of all the 20 samples was less than 10%.

## Accuracy

The results of Vitamin D Quanti Card were in conformity with NIST standards, Standard Reference Material (972a) containing level 1, 2, 3 & 4 for Vitamin D from National Institute of Standards & Technology (NIST), US Department of Commerce, USA. The results are tabulated as follows:

### NIST Standard Reference Material (SRM) for Vitamin D metabolites

| Levels  | Certified Values in NIST SRM 972a (ng/mL) | Value Observed in Vitamin D Quanti Card (ng/mL) | Co-relation   |
|---------|---|---|---|
| Level 1 | 28 ± 1.1                                  | 29.2  | Results with all 4 levels of standards are within defined range and found to be in co-relation. |
| Level 2 | 20.20 ± 0.52                              | 19.93   |   |
| Level 3 | 33.1 ± 0.8                                | 32.7  |   |
| Level 4 | 29.4 ± 0.9                                | 28.8  |   |

The assay demonstrated excellent correlation with results determined by LC-MS/MS and correlation coefficient ( $R^2$ ) is 0.996.