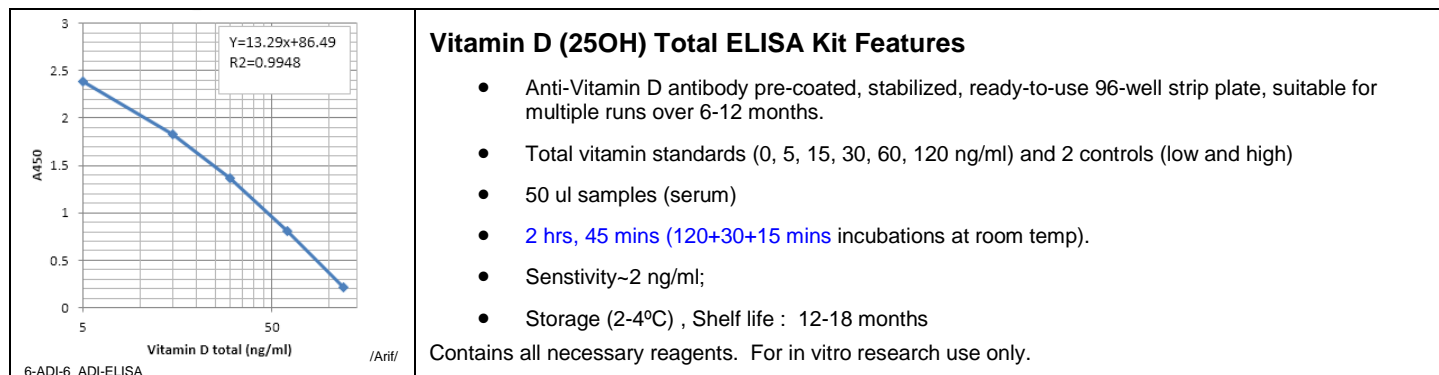


25-OH Vitamin D Total ELISA Kit #0345-VID, 96 tests

25-OH Vitamin D Total ELISA is a competitive assay for the quantitative measurement of 25-hydroxyvitamin D2 and D3 (25OH-D2 and 25OH-D3) or total vitamin D in serum. For in vitro research use only (RUO), not for therapeutic or diagnostic use.

Assay Procedure: Arrange required number of strips on the plate.



- Step 1. Add 50 µl of standards, controls and samples into respective wells. Add 150 ul of incubation buffer into each well. Mix gently and incubate at room temp for 2 hrs at room temp (25-28oC) on a plate shaker.
- Step 2. Aspirate well contents and wash 3X with wash buffer. Add 200 ul of supplied antibody-HRP conjugate and incubate for 30 min on a plate shaker at room temp.
- Step 3. Aspirate or wash 4x with wash buffer. Tap plates over paper towels. Add 100 ul of TMB Substrate. Mix gently and incubate for 15 min on a plate shaker at RT. Blue color develops in standards and samples.
- Step 4. Add 100 ul of stop solution into each well and mix gently (blue color turns yellow). Measure yellow color at 450 nm. Intensity of the color is indirectly proportional to the concentration of total vitamin D (higher the color, less the concentration). Plot the know standards and calculate the values of the unknown from the standard curve.

Kit Specifications

Spiking & Recovery 25OH-Vit.D3 (92-100%) 25OH-Vit.D2 (95-105%)
Linearity Serum (83-103%) **Intra-Assay CV%** <3-7% **Inter-Assay CV%** <4-9%

Specificity: Cross reactivity of the 25OH Vitamin D Total ELISA assay was determined by testing sera with spiked and unspiked cross reactant: 25OH-Vitamin D3 at 10 ng/mL (100%); 25OH-Vitamin D2 at 10 ng/mL (86%); 1,25(OH)2-Vitamin D3 at 200 ng/mL (20%). 1,25(OH)2-Vitamin D2 at 690 ng/mL (1.9%); Vitamin D3 at 200 ng/mL (2.9%), Vitamin D2 at 200 ng/mL (1.3%); 24,25(OH)2-Vitamin D3 at 20 ng/mL (>100%); 25,26(OH)2-Vitamin D3 at 4 ng/mL (>100%); 3-epi-25OH-Vitamin D3 at 20 µg/mL (0.1%).

Interference: Hemoglobin at 500 mg/dL; Bilirubin conjugate at 100 mg/dL and bilirubin unconjugated at 100 mg/dL, triglycerides at 500 mg/dL, vitamin C at 100 mg/dL; biotin at 4 mg/dL, and Zemplar at have minimal interference of <3% to -4%.

25-OH Vitamin D—General Information

Vitamin D is the generic term used to designate Vitamin D2 or ergocalciferol and Vitamin D3 or cholecalciferol. Humans naturally produce Vitamin D3 when the skin is exposed to ultraviolet sun rays. In the liver mainly, Vitamin D3 is metabolised into 25-Hydroxyvitamin D3 (25OH D3) which is the main form of Vitamin D circulating in the body. 25OH D3 is a precursor for other Vitamin D metabolites and has also a limited activity by itself. The most active derivative is 1,25-hydroxyvitamin D3, produced in the kidney (or placenta) by 1-hydroxylation of 25OH D3. 25OH Vitamin D stimulates the intestinal absorption of both calcium and phosphorus and also bone resorption and mineralisation. 25OH Vitamin D might also be active in other tissues responsible for calcium transport (placenta, kidney, mammary gland ...) and endocrine gland (parathyroid glands, beta cells...). Vitamin D3 and Vitamin D2 are also available by ingestion through food or dietary supplementation. As Vitamin D2 is metabolised in a similar way to Vitamin D3, both contribute to the overall Vitamin D status of an individual. It is the reason why it is very important to measure both forms of 25OH Vitamin D equally for a correct diagnosis of Vitamin D deficiency, insufficiency or intoxication. Vitamin D deficiency is an important risk factor for rickets, osteomalacia, senile osteoporosis, cancer and pregnancy outcomes. The measurement of both 25OH Vitamin D forms is also required to determine the cause of abnormal serum calcium concentrations in patients. Vitamin D intoxication has been shown to cause kidney and tissue damages.

ADI's Leptin ELISA kit is a highly sensitive sandwich type assay for the measurement of leptin in serum. The assay can be adapted to measure mouse leptin in other biological fluids such as plasma, urine, culture medium etc

Related Items

Catalog# ProdDescription

0340-B12 Vitamin B12 ELISA kit, 96 tests, Quantitative
0345-VID Vitamin D total (25OH) ELISA kit, 96 tests, Quantitative
0360-B06 Vitamin B6 ELISA kit, 96 tests, Quantitative
0345-VID-Vitamin-D-Total-ELISA-Flr 150908A

