Datasheet for ABIN2648856

25-OH Vitamin D ELISA Kit

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Overview

Quantity:	96 tests
Target:	25-OH Vitamin D
Reactivity:	Chemical
Application:	ELISA

Product Details

Purpose:	25-OH Vitamin D ELISA assay kit is designed for the serological determination of the vitamin D concentration in the human organism
Sample Type:	Serum, Plasma
Detection Method:	Colorimetric
Sensitivity:	1.9 ng/mL
Characteristics:	Types of vitamin D that are differentiated are vitamin D2 (ergocalciferol) that is contained in plant food (mushrooms, avocado) and vitamin D3 (cholecalciferol) that is produced from 7-dehydrocholesterol in the skin under ultra-violet irradiation or found in animal food or products (sea fish, egg yolk, butter) [1, 2, 3, 4]. These two forms of vitamin D, which are not yet biologically active, are bound by a protein called VDBP (vitamin D binding protein) in the bloodstream, then metabolised in the liver and converted into 25-OH vitamin D2 (calcidiol) and 25-OH vitamin D3 (calcitriol), respectively, which are storage forms of the vitamin with little activity [1]. In contrast to other commercially available tests, the Eagle Biosciences 25-OH Vitamin D ELISA assay kit uses a newly designed monoclonal antibody which is specific for both vitamin D2 and vitamin D3 at 100 % specificity. This is necessary because sometimes vitamin D2 instead of D3 is used in therapy [5, 6, 7].

Target Details

Target:	25-OH Vitamin D
Abstract:	25-OH Vitamin D Products

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Sample Volume:	10 µL
Assay Time:	2 - 3 h
Protocol:	The new 25-OH Vitamin D ELISA assay test kit is designed for the determination of 25-OH Vitamin D in human serum or plasma samples. In the first analysis step, the calibrators and patient samples are diluted with biotin-labelled 25-OH vitamin D and added to microplate wells coated with monoclonal anti-25-OH Vitamin D antibodies. During the incubation an unknown amount of 25-OH Vitamin D in the patient sample and a known amount of biotin-labelled 25-OH vitamin D compete for the antibody binding sites in the microplate wells plate. Unbound 25-OH vitamin D is removed by washing. For the detection of bound biotin-labelled 25-OH vitamin D, a second incubation is performed using peroxidase-labelled streptavidin. In a third incubation using the peroxidase substrate tetramethylbenzidine (TMB) the bound peroxidase promotes a colour reaction. The colour intensity is inversely proportional to the 25-OH vitamin D concentration.
Restrictions:	For Research Use only

Handling

Storage:	4 °C