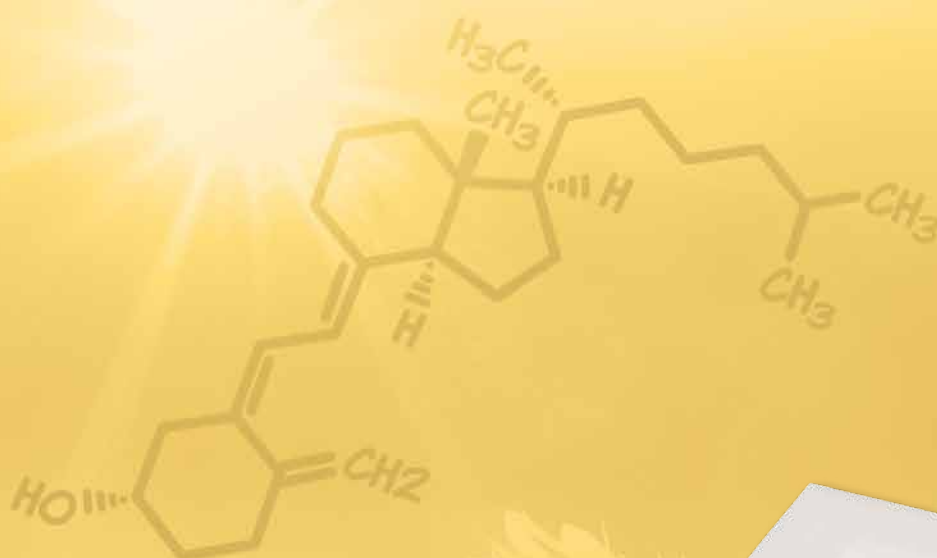


# 25-OH Vitamin D

Reliable detection of 25-OH Vitamin D3 and D2

- > No external sample preparation
- > Standardized calibration

ELISA



# 25-OH Vitamin D

## Vitamin D

Vitamin D is a precursor of the steroid hormone  $1,25\text{-(OH)}_2\text{D}_3$  which binds to and activates the transcription factor VDR (Vitamin D receptor).

The vitamin D-VDR complex regulates 2-3% of the human genome and thus has a major influence on the human organism. Skin exposure to ultraviolet (UV) radiation from the sun is the main source of vitamin D. Sources of vitamin D in the diet include fatty fish such as herring and salmon.

## Vitamin D Insufficiency

Vitamin D deficiency is a major global health problem. Several population studies have identified widespread 25-OH insufficiency in apparently otherwise healthy populations.

## Indication of Vitamin D measurement

- > Suspicion of vitamin D insufficiency
- > Pregnancy
- > Liver diseases
- > Kidney diseases
- > Estimation of the cardiovascular risk
- > Determination of the nutritive vitamin D status
- > Suspicion of Vitamin D-Intoxication

### Literature:

1. Candidate Reference Measurement Procedures for Serum 25-Hydroxyvitamin D3 and 25-Hydroxyvitamin D2 by Using Isotope-Dilution Liquid Chromatography-Tandem Mass Spectrometry (ID-LC/MS-MS), Clinical chemistry, 2011, Vol. 57, 3, pag 441 – 44.
2. Zerwek J.E. (2008), Blood biomarkers of Vitamin D status. Am. J. Clin. Nutr., 87 (suppl): 1087S-91S.
3. Heaney R.P. (2010), Defining deficiency of vitamin D. Clinical Laboratory International, October 2010, vol. 34: 16-19.

## Vitamin D related diseases

Vitamin D plays an important role not only in the bone mineral metabolism, but has also extraosseous effects. Deficiency is a risk factor for many severe diseases:

- > Autoimmune diseases
- > Cancer
- > Cardiovascular diseases
- > Type II diabetes
- > Osteoporosis
- > Peripheral Artery Disease
- > Infectious diseases

## Reference range of 25-OH Vitamin D status



## Assay performance

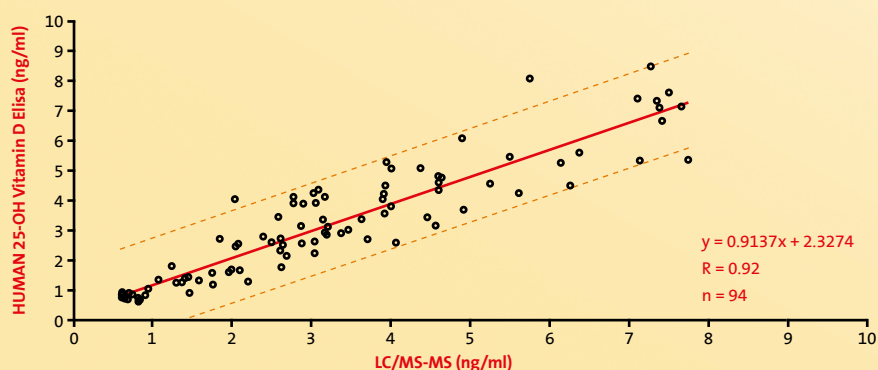
Size	96 tests
Sample type	Serum
Sample volume	50 $\mu$ l
Range	0-180 ng/ml
Sensitivity	1.5 ng/ml
Total assay time	~ 3 hours
Incubation	120 min + 30 min + 15 min

## Characteristics of Vitamin D

### 25-OH ELISA

The HUMAN 25-OH Vitamin D assay is an ELISA for the determination of vitamin D in human serum. All steps, including the pre-treatment, are performed on the ELISA MT-plate.

Excellent correlation to the reference method LC/MS-MS, traceable to NIST SRM 2972.



## Ordering Information

25-OH Vitamin D 96 tests

Cat. No.

55500

# Human

Diagnostics Worldwide