FREE 25OH VITAMIN D ELISA

Assay characteristics	Free 25OH Vitamin D ELISA
Article code	KAPF1991
Format	12 X 8
Size	96 Tests
Sample type	Serum
Sample volume	10 µL
Controls	2 levels
Range	0.2 – 35 pg/mL
Total analysis Time	190' (3h10)
Total incubation time	155' (2h35)
LoD	1.9 pg/mL
Total Precision	4.2 – 5.8 % at 7.0 pg/mL 3.7 – 4.4 % at 12.0 pg/mL

SIMPLE ACCURATE AND DIRECT

- Direct Measurement of Free 25OH Vitamin D
- No sample Pre-treatment
- Low volume: 10µL volume
- Calibrated against Rate Dialysis

CLINICAL APPLICATIONS

Free 25OH Vitamin D is a novel laboratory biomarker for Vitamin D Status monitoring in Woman Health:

- Human Pregnancy
- In-Vitro Fertilization
- The use of Oral Contraceptives

Free 25OH Vitamin D seems to be a better marker of Vitamin D status than total 25OH Vitamin D for:

- Obesity/Insulin
- Cancer
- Liver disease
- Respiratory disease
- Pregnancy
- Intensive care
- Renal disease
- Osteoporosis/Bone mineral density

The measurement of Free 25OH Vitamin D helps to reduce the inter-racial Vitamin D status variation, by mitigating the differences in the affinity of the different forms of the Vitamin D Binding Protein. More particularly in studies in which the following populations are represented:

- Black Hispanic Asian

SCIENTIFIC CONCEPT

According to the free hormone hypothesis the biological activity of the hormone is directly linked to the concentration of its free form:

- 25OH Vitamin D is for >99,9% bound to binding proteins: 90% to DBP, 10% to Albumin
- About 0,04% circulates as the free form = "Free 25OH Vitamin D"
- All current 25OH Vitamin D assays measure the sum of the bound and free forms, and do not reflect the concentration of the free hormone

OUR OFFERING

If you need support for internal validation and/or for a study design with our free Vitamin D ELISA test in your laboratory please contact Diasource: info@diasource.be and/or visit our new dedicated website: www.freevitamind.org

References:

Hocher B., J Steroid Biochem Mol Biol. 2018, p.30375-8, Reference intervals for measured and calculated free 25-hydroxyvitamin D in normal pregnancy.
Pilz S., J Clin Endocrinol Metab. 2018, doi: 10.1210/jc.2018-00336, Hormonal Contraceptive Use is Associated with Higher Total but Unaltered Free 25-Hydroxyvitamin D Serum Concentrations.
Hocher B., J Steroid Biochem Mol Biol. 2018 (80), 87-104, Why should we measure free 25(OH) Vitamin D.
Aloia J., J. Clin. Endocrinol. Metab. 2015 (100), 3356-63, Free 25(OH)D and the Vitamin D Paradox in African Americans.