



Intact PTH ELISA

Calcium Metabolism

An enzyme immunoassay for the quantitative determination of Intact Parathyroid Hormone (iPTH) in human serum or plasma. Results are to be used in conjunction with other clinical and laboratory data to assist the clinician in the differential diagnosis of hypercalcemia and hypocalcemia resulting from disorders of calcium metabolism.

Parathyroid hormone (PTH) is a polypeptide hormone secreted by the parathyroid glands in a 115 amino acid form. After post-translational modifications, PTH reaches the biologically active form of 84 amino acids (Intact PTH). It is released in the blood where it rapidly degrades (half-life about 4 minutes). Synthesis of PTH is governed by direct negative feedback of ionised calcium on the parathyroid tissues¹. A fall in serum calcium stimulates PTH release, which acts on the kidneys to promote calcium reabsorption and 1,25-dihydroxyvitamin D production. This stimulates bone resorption, restoring serum calcium levels to physiologically acceptable levels². PTH is degraded inside the parathyroid glands, in the liver, kidneys and bones. A high concentration of intact PTH in the blood may indicate kidney dysfunction.

The iPTH measurement in serum/plasma helps in:

- identifying primary and secondary hyperparathyroidism
- finding the cause of abnormal blood calcium levels
- monitoring patients with chronic kidney disease


Features and benefits


- High sensitivity and reproducible results
- All reagents are supplied ready to use
- Controls are included in the kit
- Shelf life more than 18 months
- Short Incubation time
- Excellent correlation with a commercial method (110 samples tested):
 $Y = 1.0124 * X + 2.7005$
 $r^2 = 0.996$

Specifications


Format	ELISA
Calibrators	Ready To Use – 6 vials – 0.5 mL each - 6 concentration levels
Controls	Ready To Use – 2 vials – 0.5 mL each
Assay Range	15-1000 pg/mL
Sensitivity	0.49 pg/mL
Sample Volume	25 µL
Sample Type	Serum / Plasma

Ordering information

 Product Name	Description	Code
Intact PTH ELISA	96 Wells	DKO157

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Complementary Products

 Product Name	Description	Code
25-Hydroxy Vitamin D ⁵ EIA	96 Wells	AC-57SF1
25-Hydroxy Vitamin D RIA	100 tubes	AA-35F1
1,25-Dihydroxy Vitamin D EIA	96 Wells	AC-62F1
1,25-Dihydroxy Vitamin D RIA	40 immunocapsules	AA-54F1
1,25-Dihydroxy Vitamin D RIA	56 immunocapsules	AA-54F2
Ostase [®] BAP EIA	96 wells	AC-20F1
BoneTRAP [®] (TRAcP 5b) ELISA	96 wells	SB-TR201A
25-OH Vitamin D	96 wells	DKO146
Calcitonin	96 wells	DKO181

References

1. Potts JT. Parathyroid Hormone: Past and present. J Endocrinology (2005) 187: 311-325.
2. Bringhurst FR. et al: Circulating forms of parathyroid hormone: Peeling back the onion. Clin Chemistry (2003) 49: 1973-1975.